May 16, 2017

Randall A. Snyder President, Wireless Research Services, LLC 8113 Bay Pines Avenue Las Vegas, NV 89128

Via ECFS

Ms. Marlene H. Dortch, Secretary Office of the Secretary Federal Communications Commission 445 12th Street SW Washington, D.C. 20554

Re: Comments on Petition for Expedited Declaratory Ruling Filed by All About The Message, LLC, CG Docket No. 02-278, DA 17-368

Dear Ms. Dortch:

I am writing the Commission to provide my comments regarding the Petition for Expedited Declaratory Ruling filed by All About the Message, LLC ("AATM"). I am a telecommunications technology engineer and have been retained as an expert witness in 107 Telephone Consumer Protection Act (TCPA) lawsuits to date representing both plaintiffs and defendants regarding automatic voice call and automatic text messaging technology. My expert opinions have even been cited by the United States Court of Appeals for the Ninth Circuit on the issue of what constitutes an automatic telephone dialing system ("ATDS") under the TCPA. See Satterfield v. Simon & Schuster, Inc., 569 F.3d 946, 951 (9th Cir. 2009). I have extensive technical experience in both landline and wireless telecommunications back to 1987. Exhibit 1 includes my CV and expert witness case list. I am not being compensated for these comments in response to the petition.

In my professional capacity, I have become very familiar with the TCPA, associated FCC regulations and dozens of district court and appellate court opinions regarding the TCPA. In many cases, the organization defending an alleged TCPA violation is a technology provider that places automatic text message calls and voice calls to cellular subscribers. In my opinion, AATM is such a technology provider, selling mass communication services to telemarketers, debt collectors and other markets

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AATM is asking the FCC to, "declare that the delivery of a voice message directly to a voicemail box does not constitute a call that is subject to the prohibitions on the use of an automatic telephone dialing system ('ATDS') or an artificial or prerecorded voice" that are set forth in the Telephone Consumer Protection Act (TCPA). (AATM Petition at ii.) AATM argues that, "The TCPA does not impose liability for voicemail messages, delivered directly to a voicemail service provider, that never pass through a person's cellular telephone line..." (AATM Petition at ii.)

I strongly disagree with AATM's position and granting its request will cause egregious harm to all cellular telephone subscribers that use voicemail, including those on the Commission and members of Congress. This harm caused by ringless voicemail ("RVM") is no less than that caused by illegal automatic text message calls and automatic voice calls explicitly covered under the TCPA.

I recently testified as an expert witness in a TCPA class action lawsuit (*Mahoney v. TT of Pine Ridge, Inc.*, 9:17-cv-80029-DMM (S.D. Fla.)) where Stratics Networks, Inc. ("Stratics Networks") was the telecommunications technology used by the defendant to leave unsolicited prerecorded voice messages in the voicemail boxes of unsuspecting cellular subscribers. This case is not under seal and I am providing my expert report as Exhibit 1. My conclusion and expert opinion is that the underlying technology platform marketed and sold by AATM (Stratics Networks) initiates automatic calls to cellular subscribers' voicemail boxes *en masse* qualifies as an ATDS as defined by the TCPA and associated regulations.

Among the arguments I present in my expert testimony are as follows:

- 1. Cellular telephone numbers are always required to identify the voicemail boxes of cellular subscribers as the destination for automatic prerecorded voice messages.
- 2. One technological technique that can be used to transmit automatic prerecorded voice messages into subscribers voicemail boxes *en masse* is essentially the same technological technique used to transmit automatic text

messages to cellular subscribers' short message service centers ("SMSCs") as covered under the TCPA. (Exhibit 1, ¶¶ 43-52.)

- 3. One technological technique that can be used to transmit automatic prerecorded voice messages into subscribers voicemail boxes *en masse* is essentially the same technological technique used to transmit automatic text-to-email messages as covered under the TCPA. (Exhibit 1, ¶¶ 53-63.)
- 4. The result of transmitting unsolicited prerecorded voice messages to voicemail boxes is no different than unattended message dialing whereby automatic prerecorded voice message "blast" calls are directly transmitted to the voicemail of cellular subscribers when their cell phones are turned-off, set to "do-not-disturb" or they are outside the cellular coverage area. Automatic prerecorded voice message "blast" calls are clearly covered under the TCPA. (Exhibit 1, ¶¶ 64-67.)
- 5. Cellular subscribers certainly pay for voicemail service, both for particular voicemail capacity levels and for voice and data calls that are required to be made to access voicemail, which accrue against subscription plans. These fees can be extremely high when accessing voicemail while roaming and especially international roaming.

AATM has been very careful to characterize the automatic prerecorded voice message calls it initiates to a carrier's voicemail system *en masse* as not being *direct* calls to cellular telephone numbers. I am not a lawyer; however, I have not seen the requirement within the TCPA and associated regulations that automatic calls initiated using an ATDS are exempt if the calls are not made *directly* to cellular telephone numbers. One technological technique that can be used to transmit automatic prerecorded voice messages into subscribers voicemail boxes *en masse* has been described by other commenters, whereby automatic calls are initiated *en masse* to the voicemail systems of the cellular carriers' networks. These calls are initiated by dialing both a *pilot* number (aka a *backdoor* number) to the respective voicemail system along with the cellular telephone number of a subscriber to identify the voicemail box. The automatic calls

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Stratics Networks initiates to voicemail boxes certainly requires cellular telephone numbers to be dialed as part of the call process. This is no different than initiating automatic calls to an interactive voice response ("IVR") system whereby a telephone number or extension number is subsequently required to complete the call to that number or extension, such as to an office.

Granting AATM's request to exempt RVM calls from the TCPA will precisely result in intermittent audio advertisements that are required to be played by cellular subscribers while they are accessing their voicemail messages. This is no different than the business models employed by music streaming services like Pandora and Spotify whereby service is provided to consumers for free if they agree to listen to commercial advertisements between songs. The difference is that Pandora and Spotify customers consent to such advertisements and in return can listen to free music.

Cellular subscribers do not agree to and cannot control the voicemail advertisements RVM technology enables to telemarketers. Consumers do not reap benefits from such technology as they do with music streaming services and, in fact, this technology results in extraneous charges that cellular subscribers cannot control and have not agreed to.

Sincerely,

Randall A. Snyder
Randall A. Snyder

President

Wireless Research Services, LLC

(http://www.WirelessResearchServices.com)

EXHIBIT 1

IN THE UNITED STATES DISTRICT COURT FOR THE SOUTHERN DISTRICT OF FLORIDA

Case No. 17-80029-CV-MIDDLEBROOKS/BRANNON

Plaintiff, v.	
V.	
TT of Pine Ridge, Inc.,	
Defendant/	

DECLARATION OF RANDALL A. SNYDER

- I, Randall A. Snyder, hereby declare as follows:
- 1. My name is Randall A. Snyder. I am an adult over the age of 18 and a resident of the state of Nevada. I have personal knowledge of each of the matters stated herein, and if called to testify I could and would testify competently about them.
- 2. I am an independent telecommunications technology consultant and reside at 8113 Bay Pines Avenue, Las Vegas, Nevada, 89128. I have been retained by the Law Office of Chris R. Miltenberger, PLLC in the matter *Mahoney v. TT of Pine Ridge, Inc.*, 9:17-cv-80029-DMM (S.D. Fla.), to provide my expert opinions relating to technology described within the Telephone Consumer Protection Act, 47 U.S.C. § 227 ("TCPA"). In particular, I have been asked to determine whether Defendants TT of Pine Ridge, Inc., or its vendors All About the Message, LLC ("AATM") and Stratics Networks, Inc. ("Stratics Networks") (collectively, "Defendant") operated equipment which has the capacity to store or produce telephone numbers to be called, using a random or sequential number generator, or from a list or database of numbers, and

whether Defendant operated equipment which has the capacity to dial telephone numbers without human intervention. I have also been asked to compare the technology used to send ringless voicemails/voicemail drops ("RVM") with the technology used to send (i) mass short message service messages ("text messages"); and (ii) text messages to email addresses. Finally, I have been asked to provide my opinions on whether RVM voice messages initiated to cellular telephone numbers can be considered calls initiated to those subscribers.

3 My opinions in this Declaration are based on my knowledge, education, experience, expertise, training and my review of the following documents in this case: Plaintiff Tom Mahoney's Class Action Complaint and Demand for Jury Trial; Defendant TT of Pine Ridge, Inc. D/B/A Naples Nissan's Motion for Summary Judgment or, in the Alternative, to Dismiss Pursuant to Fed. R. Civ. P. 12(B)(1) and Incorporated Memorandum of Law in Support; Defendant TT of Pine Ridge, Inc. D/B/A Naples Nissan's Statement of Material Facts in Support of its Motion for Summary Judgment; Declaration of Chris Blaylock; Responses and Objections of Defendant TT of Pine Ridge, Inc., to Plaintiff Thomas Mahoney's First Set of Requests for Admission; Responses and Objections of Defendant TT of Pine Ridge, Inc. D/B/A Naples Nissan to Plaintiff Thomas Mahoney's First Set of Interrogatories; Responses and Objections of Defendant TT of Pine Ridge, Inc., D/B/A Naples Nissan to Plaintiff Thomas Mahoney's First Set of Requests for Production; Verizon Website Voicemail FAQS; Verizon Website Voicemail Comparison; Stratics Networks Ringless Voicemail Drops TM Compliance; Stratics Networks Top Telecom Attorneys Endorse Ringless Voicemail Drops; Stratics Networks All About the Message Ringless Voicemail Drops Compliance; Federal Communications Commission Petition for Declaratory Ruling of All About the Message, LLC; Stratics Networks Features Showdown; Telephone Consumer Protection Act, 47 U.S.C. § 227, et seq. ("TCPA") and regulations promulgated thereunder; Federal Communications Commission's ("FCC") Report and Order in the Matter of Rules and Regulations Implementing the Telephone Consumer Protection Act of 1991 dated October 16, 1992, 7 FCC Rcd. 8752 (1992); FCC's Report and Order in the Matter of Rules and Regulations Implementing the Telephone Consumer Protection Act of 1991 dated July 3, 2003, 18 FCC Rcd. 14014 (2003); FCC's Declaratory Ruling in the Matter of Rules and Regulations Implementing the Telephone Consumer Protection Act of 1991 Request of ACA International for Clarification and Declaratory Ruling dated January 4, 2008, 23 FCC Red. 559 (2008); Appeal from the United States District Court for the Northern District of California in Satterfield v. Simon & Schuster, Inc., No. 07-16356, District Court No. CV-06-02893-CW Opinion, filed June 19, 2009, 569 F.3d 946 (9th Cir.); the written decision in Joffe v. Acacia Mortg. Corp., 211 Ariz. 325, 121 P.3d 831, Ariz. Adv. Rep. 3, 462 Ariz. Adv. Rep. 38, 2005 WL 2303700 (Ct. App. 2005); FCC's Report and Order in the Matter of Rules and Regulations Implementing the Telephone Consumer Protection Act of 1991 dated February 15, 2012, 27 FCC Rcd. 1830; FCC's Notice of Proposed Rulemaking in the Matter of the Middle Class Tax Relief and Job Creation Act of 2012, Establishment of a Public Safety Answering Point Do-Not-Call Registry dated May 22, 2012; FCC's Declaratory Ruling in the Matter of Rules and Regulations Implementing the Telephone Consumer Protection Act of 1991, SoundBite Communications, Inc. Petition for Expedited Declaratory Ruling dated November 29, 2012, 27 FCC Rcd. 15391 (2012); and FCC's Declaratory Ruling in the Matter of Rules and Regulations Implementing the Telephone Consumer Protection Act of 1991 dated July 10, 2015, 30 FCC Rcd. 7961 (2015).

4. I have over 30 years of experience in telecommunications network and system architecture, engineering, design and technology. I am an expert in the fields of both wireline and wireless telecommunications networking technology. I have been retained as a testifying or consulting expert in more than 140 cases regarding cellular telecommunications technology,

including 104 cases regarding the TCPA and associated regulations. Among the 104 TCPA cases for which I have been retained, 65 involved automated text message calls initiated to cellular subscribers.

- 5. In addition, I have been retained as an expert by both plaintiffs and defendants in cases regarding the TCPA.
- 6. I have taught many classes and seminars on both wireline and wireless telecommunication network technologies and have been a panelist and speaker at numerous conferences at the Institute of Electrical and Electronics Engineers ("IEEE"), the Personal Communication Society ("PCS"), and the Cellular Telecommunications and Internet Association ("CTIA"). I spent seven years developing standards within the American National Standards Institute's subsidiary organization, the Telecommunications Industry Association ("TIA"), providing technical contributions and authoring and editing telecommunications proposed standards. Most notably, I authored and oversaw the standardization of Interim Standard 93, providing interconnection technology between wireline and wireless networks, which is a fully accredited national standard of the American National Standards Institute ("ANSI").
- 7. I am the co-author of the McGraw-Hill books "Mobile Telecommunications Networking with IS-41," and "Wireless Telecommunications Networking with ANSI-41, 2nd edition" published in 1997 and 2001, respectively. I have 29 patents on telecommunications networking technology and currently have five additional published patents pending. I have also authored several articles on telecommunications technology and have been frequently quoted in industry trade publications. I have consulted for the CTIA and many wireline and wireless telecommunications companies, including IBM, Bell Laboratories, McCaw Cellular, AirTouch, AirTouch International, AT&T Wireless, AT&T Mobility, Lucent, Nokia, Ericsson, Motorola,

Samsung, Siemens, Nextwave, MCI, Daewoo, Globalstar, T-Mobile, Sprint, U.S. Cellular, Teleglobe Canada, Teledesic, IBM, Google and other telecommunications technology vendors and service providers. I was also nominated in 2006 for a National Television Arts Emmy Award for Outstanding Achievement in Advanced Media Technology for unique wireless content distribution technology I designed while employed at Entriq, Inc.

8. Additional details, including authored publications within at least the past ten years, are provided in my attached *curriculum vitae* (a true and correct copy of which is attached hereto as Exhibit A) along with a list of cases where I served as a testifying or consulting expert and my standard rate sheet. I am being compensated at the rate of \$475 per hour for my study, analysis and written testimony in this case.

INTRODUCTION

- 9. I understand that fact discovery in this case is ongoing and I also understand that there are documents and/or evidence that have yet to be produced. To the extent that I cannot currently opine on some of the technical issues in this case, I hereby reserve the right to supplement this Declaration with additional conclusions and opinions in a detailed and additional supplementary declaration in the future.
- 10. It is my understanding that the TCPA defines an automatic telephone dialing system ("ATDS") as "equipment which has the capacity (i) to store or produce telephone numbers to be called, using a random or sequential number generator; and (ii) to dial such numbers." Additionally, it is my understanding that the Federal Communications Commission ("FCC") has issued regulations that also define an ATDS as including the capacity to dial telephone numbers from a provided list or database of telephone numbers without human intervention.

- 11. Based on my review of the relevant documents and the facts described above, it is my opinion that "ringless voicemail" messages initiated to cellular telephone numbers are calls to those subscribers. These "ringless voicemail" message calls are made and initiated to cellular subscribers in the same way that text message calls are made and initiated to cellular subscribers. I base this opinion on my knowledge, education, experience, expertise, training and on the evidence I have reviewed.
- 12. It is also my opinion that with regard to whether sending an RVM message is a call under the TCPA the technology used by Defendant and steps involved in sending a RVM message are substantially the same as the technology used and steps involved in sending both mass text messages and text to email addresses text messages.
- 13. Furthermore, based on my review of the relevant documents and the facts described above, it is my opinion that the Defendant utilized equipment which has the capacity to store or produce telephone numbers to be called, using a random or sequential number generator, or from a list or database of numbers, and to dial such numbers without human intervention. I base this opinion on my knowledge, education, experience, expertise, training and on the evidence I have reviewed.

FACTS ABOUT CELLULAR VOICEMAIL

14. Voicemail service is a well-known and commonly-used telecommunications feature that is offered to subscribers of cellular carrier networks. Voicemail, as a cellular subscriber feature, is fundamentally different from other messaging services. More familiar messaging technologies, such as short message service ("SMS") (*i.e.*, text messages), can be sent to cellular subscribers either manually (*i.e.*, person-to-person) or via an automatic computerized messaging system governed by programmatic logic. These automatic text messaging systems can

send tens of thousands of messages *en masse* to cellular subscribers and have been determined to be automatic telephone dialing systems.

- 15. Voicemail has traditionally been a communications service that is generally not preferred by the calling party as the destination endpoint for calls to cellular telephone numbers. Voicemail has typically only been used as a secondary or alternative means to communicate when the cellular subscriber is unavailable for a voice call. It affords the calling party (*i.e.*, the party initiating the call) the ability to leave a prerecorded voice message in the called party's (*i.e.*, the cellular subscriber's) individual "voicemail box" when that cellular subscriber is unavailable to receive the call.
- 16. The intent of the calling party is generally not to leave a prerecorded message for the cellular subscriber; rather, the calling party is attempting to have a real-time voice communication with the cellular subscriber. Voicemail is used as an alternative means to communicate with the cellular subscriber when a real-time voice call is not possible.
- 17. The voicemail box itself is not a physical construct; rather, it is an individual virtual repository contained within the cellular subscriber's carrier's voicemail computer system that stores an individual subscriber's voicemail messages and configuration data. Most subscribers require only one voicemail box; however, the more modern systems enable subscribers to obtain and use more than one for various reasons.
- 18. Voicemail is used in conjunction with another commonly used feature, "call forwarding." A calling party can leave a prerecorded voice message in the cellular subscriber's voicemail box if the call forwarding feature is configured to forward the call, under various conditions, to the subscriber's voicemail box. If a cellular subscriber configures the call forwarding feature to forward incoming calls to an optional "forward-to" telephone number, the

call will be redirected and completed to that number and not the cellular subscriber's voicemail box. In addition, cellular subscribers have the option to "turn off" the voicemail feature so prerecorded messages cannot be left regardless of how call forwarding is configured.

- 19. If cellular subscribers do not want a calling party's message to be left in the cellular subscriber's voicemail box they normally have the ability to prevent such messages. Cellular subscribers typically maintain complete control of the voicemail box and custom configurations. These configurations define the conditions or events that cause incoming calls to be redirected to voicemail or to another telephone number. Subscribers simply need to follow the published instructions that each carrier provides to access and control the voicemail and call forwarding features.
- 20. The "call forwarding-busy" feature can be set such that when the cellular subscriber is already engaged in a call, the calling party will not hear a busy tone; rather, the call will be automatically redirected to connect with the subscriber's voicemail box. The "call forwarding-no answer" feature can be set such that when an incoming call encounters a "no answer" condition the call will be automatically redirected to connect with the subscriber's voicemail box. While the "busy" condition is easily defined—the subscriber is already engaged in a call—the "no answer" condition encompasses a number of situations. The call is forwarded to voicemail if the subscriber simply does not answer the incoming call before a certain number of rings occur. If the cellular subscriber's phone is turned off, a "no answer" condition occurs and the incoming call is immediately forwarded to voicemail. If the cellular subscriber is outside of the cellular coverage area or the cellular network cannot locate the cell phone, a "no answer" condition occurs and the incoming call is immediately forwarded to voicemail. In addition, there is a "call forwarding-unconditional" option that can be set by the subscriber so that all incoming

calls are immediately redirected to another number or to voicemail regardless of any condition, even if the cell phone is active and the subscriber is not engaged in a call.

- 21. Call forwarding-busy to voicemail and call forwarding-no answer to voicemail are the typical default configurations that are setup by the cellular carrier at the commencement of a cellular subscription. Once cellular subscribers become authorized to use the cellular network, they maintain complete control over whether prerecorded voice messages can be and under what specific conditions.
- Incoming calls to a cellular subscriber to be forwarded to voicemail are redirected 2.2. to an individual and unique voicemail box dedicated to that subscriber. This dedicated voicemail box has a unique address so it can be properly associated with the particular subscriber. The subscriber's cellular telephone number is preserved within the call setup signaling protocol (i.e., the called party number field) to complete an incoming call to the subscriber. Signaling information is necessarily transmitted throughout the telecommunications networks, from source to destination, to provide the intelligence within the network to setup and establish the call communication from end to end. When an incoming call is redirected to voicemail, the called party number (i.e., the cellular subscriber's telephone number) is passed to the voicemail system to properly identify the individual voicemail box for that subscriber. Once the call connection is setup and completed from the calling party to the called party's (cellular subscriber's) voicemail box, the calling party has the opportunity to record a voice message and leave this recorded message for the cellular subscriber to later retrieve and listen to. Most importantly, the cellular subscriber's telephone number is externally used as the address to identify that subscriber's voicemail box within the voicemail system. Without passing the cellular subscriber's telephone number to the voicemail system itself a voicemail message could not be left for a cellular

subscriber because the voicemail system would not know the identity of the mailbox in which to deposit the message.

- 23. A call initiated by a calling party can be completed to the subscriber's voicemail box if the voicemail service is turned on, active and the call forwarding feature is properly setup and configured to redirect the incoming calls. Alternatively, there exist technologies that enable the calling party to complete a communication directly to the voicemail system to leave voice messages for cellular subscribers.
- 24. Once a recorded voice message is left in the voicemail box for a particular cellular subscriber, that subscriber will receive a "message waiting indication" signal in the form of either an audible alert tone or a visual alert that appears on the cellular telephone display. Many voicemail systems today incorporate technology to automatically transcribe a stored voicemail message into text and send it to the cellular subscriber's device to display.
- 25. Voicemail systems and their associated communications protocols are typically not designed to operate in the same manner as peer-to-peer cellular messaging protocols, such as SMS. However, companies have emerged that have developed technology to bypass call forwarding and enable prerecorded voice messages to be delivered to the voicemail boxes of cellular subscribers as a direct message delivery mechanism. These technologies are generally unknown to cellular subscribers and cellular subscribers have no expectation that any prerecorded voice messages can be left for them in their voicemail boxes if incoming cellular calls have not been redirected there. These voice messages can be sent directly to cellular subscribers via an automatic computerized messaging system governed by programmatic logic. These automatic systems can send tens of thousands of voice messages *en masse* directly to cellular subscribers.

FACTS ABOUT SHORT MESSAGE SERVICE

- 26. The use of Short Message Service ("SMS"), more commonly known as "text messaging" in the U.S., is a communications system and method that was designed to enable an individual cellular telephone subscriber to send, or originate, a short text message communication (typically no more than 160 characters) from his or her cellular telephone to another individual subscriber's cellular telephone that is the intended destination of the message, *i.e.*, the message recipient. SMS text messages are sent individually from one subscriber to another using a cellular telephone number as the destination address of the message. The message sender's cellular telephone number is preserved as part of the message at the destination cellular telephone where the message is received so that the message recipient knows the cellular telephone number of the message sender.
- 27. Mobile messaging companies provide a variety of text messaging services (*i.e.*, SMS) that are not strictly peer-to-peer in the sense of subscriber-to-subscriber manual communications; rather, these companies use automatic computer equipment to send and receive text messages using SMS to and from individual cellular telephone subscribers. These companies are external entities to the cellular network carriers.
- 28. Mobile messaging companies are in the business of creating and operating text message-based applications on behalf of other companies. The automatic computer equipment that these mobile messaging companies employ is used for a variety of automatic text messaging applications, marketing campaigns and dialogs on behalf of a client company to communicate with cellular subscribers. Common applications are voting, such as on reality television shows, as well as receiving news alerts, informative notifications, coupons and sports scores where short messages are sent to cellular subscribers on a regular basis.

- 29. Moreover, these mobile messaging companies use equipment that has the ability to send large numbers of text messages *en masse* to cellular telephone subscribers. Messages sent from the branded company, using a mobile marketing company's computerized messaging platform, to a cellular subscriber are termed "mobile-terminated" messages.
- 30. Mobile messaging companies send text messages *en masse* by connecting to the cellular carrier networks using internet-based connections and communications protocols. The primary protocol used is known as the Short Message Peer-to-Peer ("SMPP") protocol. SMPP is an internet-based communications protocol designed for communications between a mobile messaging company and a cellular network's Short Message Service Center ("SMSC"). SMSCs are network entities that are maintained and controlled within the cellular carriers' networks and are the storage repositories for text messages to be delivered to mobile subscribers.
- 31. Mobile messaging companies typically provide a software-based application programming interface ("API") that can be used by their clients to develop a software application that connects to their message delivery platform for that application. An API is essentially a programmatic method of communication between two computer systems. The API can be used as part of a software application created by the client company to access the message delivery platform, or it can be an online portal accessible by the client company via a web-based user interface. These software methods enable the client company to create a message template for the content that will appear in the body of the text messages and then upload, or otherwise choose, a list of cellular telephone numbers for which the text messages are to be sent. The cellular telephone numbers for which text messages are to be sent are organized into "campaigns." A campaign is simply an electronic list of telephone numbers organized by some defined criteria that are to be called by the automated text messaging system for a specific

purpose. Each distinct campaign calls the telephone numbers in the list assigned to that campaign and using the same method which is defined within the campaign setup parameters. The message template used is essentially a prerecorded text message body that is stored within the mobile messaging application system. The mobile messaging application system automates the process of repeatedly replicating and constructing individual text messages with the prerecorded message body to be sent *en masse* as mobile-terminated text messages to the previously provided and stored cellular telephone numbers.

STRATICS NETWORKS RINGLESS VOICEMAIL DROPSTM

- 32. It is my understanding that Stratics Networks¹ provided the RVM system and service to the Defendant enabling it to send unsolicited prerecorded voice messages directly to the Plaintiff's and the proposed class members' cellular voicemail boxes. Stratics Networks provides this RVM technology and system as a centralized hosted software services system.
- 33. A hosted software services system is a software delivery model whereby application software and associated data are centrally hosted in the "cloud." The cloud means a large, centralized computer equipment system serving multiple remote client users in real-time via the Internet. These systems are typically accessed by customers using a web-based application through an Internet web browser. Cloud-based solutions have become a common delivery model for many business applications for several reasons. The centralized computer equipment can provide software services to hundreds or thousands of remote customer users from the centralized hosted platform; the company operating and maintaining the platform need not deliver and install a physical system to each customer, obviating maintenance and professional services costs for those systems; software upgrades and new features and functions

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¹https://straticsnetworks.com

for the platform can be installed just once and made available to all customers at the same time, and; customers need not incur the capital and operational expenditures to own and operate a complex computer equipment system of their own. In this case, Stratics Networks manages and operates the centralized hosted computerized software and equipment that provides automatic RVM voice messaging services to remote client customers using real-time internet connections.

- 34. From an engineering and technical perspective, this software delivery model that enables multiple remote customers to deliver RVM voice messages *en masse* to cellular subscribers is precisely the identical software delivery model that mobile messaging companies use to enable their customers to deliver text messages *en masse* to cellular subscribers.
- RVM voice message system via an API. This API enables those clients to, among other things, access the centralized RVM system, create RVM messaging campaigns and assign a stored list of telephone numbers to those messaging campaigns. (Exhibit B.) The cellular telephone numbers for which prerecorded voice messages are to be sent are organized into campaigns. Each distinct campaign calls the telephone numbers in the list assigned to that campaign and using the same method which is defined within the campaign setup parameters.
- 36. The RVM system utilized by the Defendant consists of automated voice messaging technology that enables its centralized computer equipment system to communicate with a cellular carrier's voicemail system. The RVM system is an automated computer system explicitly designed to (i) take a recorded voice message file and programmatically and automatically include it as the content for each prerecorded voice message to be sent to cellular subscribers included in a particular campaign; (ii) programmatically and automatically provide and/or pass to the carrier's voicemail system each cellular telephone number (from a list

provided in an uploaded file) used to identify the individual voicemail box that is the destination of each prerecorded voice message; (iii) programmatically and automatically replicate the prerecorded voice message content for each message and assemble the entire prerecorded voice message to be sent to the cellular carrier's voicemail system; and, (iv) initiate the transmission of the prerecorded voice messages that are sent *en masse* to the cellular carriers' voicemail systems for subsequent retrieval by individual cellular subscribers.

- 37. Stratics Networks advertises that the RVM system can send up to 10,000 prerecorded voice messages per minute in bulk to the cellular carriers' voicemail systems. (Exhibit C.) Once these voice messages are delivered to the voicemail systems of the carriers, they are automatically inserted into the cellular subscribers' voicemail boxes identified by the cellular telephone numbers included with the messages.
- 38. It is evident that this system was designed to send prerecorded telemarketing voice messages to cellular subscribers *en masse*.
- 39. From an engineering and technical perspective, this method of delivering RVM voice messages *en masse* to cellular subscribers is precisely identical to the method used by mobile messaging companies to initiate text message calls *en masse* to cellular subscribers.
- 40. The RVM system utilized by the Defendant was purposely designed to deliver prerecorded telemarketing voice messages to cellular subscribers *en masse* and in a surreptitious manner by circumventing normal and expected voicemail service operations. When the RVM system is used to send prerecorded voice messages to the voicemail boxes of cellular subscribers, those subscribers have no means to prevent receiving them. The RVM system bypasses the call forwarding feature normally required to leave voicemail messages resulting in subscribers' total loss of control of the voicemail feature.

- 41. Organizations that utilize the RVM system for telemarketing can initiate and send thousands of identical prerecorded voice messages into the voicemail systems of the cellular carriers in a very short period of time. This results in cellular subscribers losing control of their voicemail and being forced to listen to any number of unwanted and unsolicited prerecorded voice messages while attempting to listen to personal and meaningful voice messages. Cellular subscribers have no control over the delivery of these prerecorded voice messages, unlike the way voicemail was designed and intended to operate. And, subscribers are not aware that these prerecorded voice messages may be unsolicited telemarketing spam until they are forced to retrieve them and listen to each message.
- 42. From an engineering and technical perspective, the RVM voice message technology and methodology is identical to that used to develop and establish automatic text messaging campaigns and to automate the process of sending text messages *en masse* to the cellular carriers' SMSC systems for subsequent delivery to cellular subscribers.

AUTOMATED RVM PRERECORDED VOICE MESSAGE TECHNOLOGY FUNCTIONS THE SAME AS AUTOMATED TEXT MESSAGE TECHNOLOGY

43. The RVM system utilized by the Defendant consists of automated voice message technology that enables its centralized computer equipment system to communicate with cellular carriers' voicemail servers. These voicemail servers may be operated by third-party companies on behalf of the cellular carriers or they may be owned, operated and controlled within the cellular carriers' networks. In either case, the topology and architecture of the network equipment is fundamentally the same; the RVM system connects to the voicemail servers in the same manner regardless of who owns and operates the equipment. The voicemail servers are the storage repositories for voice messages that are subsequently listened to by cellular subscribers.

Stratics Networks characterizes this communication connection to the voicemail servers as, "[S]oftware creates a landline to landline session directly to the telephone company's voicemail server. There is never contact between the message provider and the subscriber. It is essentially computer to computer communication." (Exhibit D.) This is also how a typical mobile messaging SMS-based text marketer's message system communicates with a cellular carriers' SMSC system

- 44. SMS-based text message systems utilized by branded companies consist of automated text message technology that enables its centralized computer equipment system to communicate with cellular carriers' SMSC systems. SMSCs are cellular carrier servers that are operated and controlled within the cellular carriers' networks. SMSCs are the storage repositories for text messages that are subsequently destined to be delivered to cellular subscribers. Using identical technology as the Stratics Networks' RVM system technology, mobile messaging companies' equipment and software creates a landline to landline session connection to the cellular carrier's SMSC servers. There is never contact between the message provider and the subscriber. In both scenarios it is essentially computer to computer communication.
- 45. Automated mobile text message equipment has the ability to send tens of thousands of text messages *en masse* to the cellular carriers' SMSCs. Unsolicited SMS-based text messages are sent in bulk from a branded company using the mobile messaging company's provided API and computerized text messaging platform.
- 46. Similarly, automated RVM voice message equipment has the ability to send tens of thousands of voice messages *en masse* to the cellular carriers' voicemail servers. Unsolicited prerecorded voice messages are sent in bulk from a branded company using the RVM voice

message company's provided API and computerized voice messaging platform.

- 47. Furthermore, a mobile messaging system is an automated computer system explicitly designed to (i) take a character–based message and programmatically and automatically include it as the content for each text message to be sent to cellular subscribers included in a particular campaign; (ii) programmatically and automatically provide each cellular telephone number (from a list provided in an uploaded file) used to identify the individual SMS "mail box" that is the destination of each text message; (iii) programmatically and automatically replicate the prerecorded text message content for each message and assemble the entire prerecorded text message to be sent to the cellular carrier's SMSC system; and, (iv) initiate the transmission of the text messages that are sent *en masse* to the cellular carriers' SMSC systems for subsequent delivery to cellular subscribers.
- 48. The capabilities and functionalities of the automated RVM prerecorded voice message system are identical in every meaningful way to the capabilities and functionalities of a an automated text message system. Mobile messaging companies can send identical unsolicited text messages into the cellular carrier networks *en masse* without making direct calls to cellular subscribers. In fact, automated bulk SMS-based text message technology is also "ringless." Just as with the RVM voice message system, cellular subscribers simply receive audible alerts when a text message is available for them to read. (Exhibit E.)
- 49. From an engineering and technical perspective, the RVM voice message system functions nearly identical to the mass mobile text messaging system. Both systems make a data connection from the sender's server to the carrier's server. As discussed above, the RVM system connects to the carrier's voicemail box server and the automated bulk SMS-based text message technology system connects to a carrier's SMSC computer system.

- 50. Both systems pass the cellular subscriber's phone number to the carrier's system. The RVM system passes the cellular subscriber's phone number to the carrier's voicemail box server and the automated bulk SMS-based text message technology system passes the cellular subscriber's phone number to the carrier's SMSC computer system.
- 51. Both systems then deposit a message in the carrier's respective system. The RVM system deposits a voice message in the carrier's voicemail box server and the automated bulk SMS-based text message technology system deposits a text message in the carrier's SMSC computer system.
- 52. The carrier's voicemail box server system and the SMSC computer system both then alert the cellular subscriber that a communication is waiting for his/her attention.

RVM PRERECORDED VOICE MESSAGE SPAM TECHNOLOGY OPERATES THE SAME AS TEXT MESSAGE SENT TO EMAIL ADDRESS SPAM TECHNOLOGY

- 53. I have reviewed the court's opinion in *Joffe v. Acacia Mortg. Corp.* in which it which it was determined that text messages sent by a server to email addresses were calls within the meaning of the TCPA and because the system used to send the text messages was determined to be an ATDS there was a violation of the TCPA.
- 54. From an engineering and technical perspective, the RVM system functions nearly identical to the text to email address technology. Both systems make a data connection from the sender's server to the carrier's server. As discussed above, the RVM system connects to the carrier's voicemail box server and the text to email address technology system connects to a carrier's SMSC computer system.
- 55. Both systems pass the cellular subscriber's phone number to the carrier's system.

 The RVM system passes the cellular subscriber's phone number to the carrier's voicemail box

server and the text to email address technology system passes the cellular subscriber's phone number to the carrier's SMSC computer system.

- 56. Both systems then deposit a message in the carrier's respective system. The RVM Message system deposits a voice message in the carrier's voicemail box server and the text to email address technology system deposits a text message in the carrier's SMSC computer system.
- 57. The carrier's voicemail box server system and the SMSC computer system both then alert the cellular subscriber that a communication is waiting for his/her attention.
- 58. It is irrefutable that the RVM voice message system initiates the sending of automated unsolicited prerecorded voice messages to cellular subscribers.
- 59. Based on my knowledge, education, experience, expertise, training, my review of the relevant documents and the facts described above, it is my opinion that the automatic RVM voice message system at issue in this case and used to send prerecorded voice messages to cellular subscribers *en masse* functions in materially the same way as automatic text message systems used to send text messages to cellular subscribers *en masse*.
- 60. The difference in the content of these automated messages (*i.e.*, an audio file vs. a character string) is entirely immaterial to the engineering analysis of how such messages are delivered *en masse* to cellular telephone numbers.
- 61. It is my understanding that automated text messages are considered calls to cellular telephone numbers within the TCPA and associated FCC regulations. It is my opinion that the same factors that make the typical mobile messaging SMS-based text message system and the typical mobile messaging SMS based text to email address based message system "calls" under the TCPA are present in the RVM system.

- 62. Therefore, based on my knowledge, education, experience, expertise, training, my review of the relevant documents and the facts described above, it is my opinion that the automated RVM voice message system initiates automatic calls to cellular telephone numbers.
- 63. Therefore, it is also my opinion, based on my knowledge, education, experience, expertise, training, my review of the relevant documents and the facts described above, that the Stratics Networks RVM voice message system is equipment which has the capacity to store or produce telephone numbers to be called, using a random or sequential number generator, or from a list or database of numbers, and to dial such numbers without human intervention.

RVM PRERECORDED VOICE MESSAGE ROBO-CALLING IS THE SAME AS UNATTENDED MESSAGE DIALING ROBO-CALLING

- 64. The unattended voice message feature of many common automatic telephone dialing systems initiates automatic prerecorded voice message calls to telephone numbers from a list of numbers without human intervention.
- 65. Unattended message dialing (also known as a "voice message blast" or a "phone blast") is a computerized method for automatically dialing electronic lists of telephone numbers with the intent to only transmit a prerecorded voice message to called parties once the call is answered. If an answering machine or voicemail system answers the call, the prerecorded voice message is left as a recording for the called party to retrieve and listen to later. Unattended voice message calls are always outbound and made from an automatic telephone dialing system to a stored electronic list of telephone numbers. The prerecorded voice message is recorded before the calling campaign is executed and is stored in an audio file that is automatically played when the call is answered.
 - 66. In addition, unattended message dialing can use prerecorded voice technology to

leave an unsolicited prerecorded voice message in a cellular subscriber's voicemail box if that subscriber does not answer the call. The telephone numbers to be dialed are stored electronically and directly dialed by the automatic telephone dialing system equipment. The list of telephone numbers to be called by the automatic equipment is uploaded into the dialing system as part of setting up a calling campaign.

67. The experience that cellular subscribers have when they receive unsolicited prerecorded voice message robo-calls in their cellular voicemail boxes that are deposited there using the RVM voice message system is identical to the experience they have when they receive unsolicited prerecorded voice message robo-calls from an unattended message dialing system. The only perceived difference is that when an unattended message dialing system initiates the robo-call, the subscriber's cell phone may ring if the subscriber is available to answer the call. Otherwise, the prerecorded voice message is left in the cellular voicemail box by the unattended message dialing system.

CELLULAR SUBSCRIBERS PAY FOR VOICEMAIL

- 68. It is my understanding that the FCC was given authority by Congress to issue regulations implementing the TCPA's requirements. It is also my understanding that the FCC specifically applies the concept of an ATDS from the TCPA to paging service, cellular telephone service, specialized mobile radio service, or other radio common carrier service, or any service for which the called party is charged for the call.
- 69. It is very common in today's cellular market for subscribers to obtain cellular features and services that are bundled for "no charge" into a variety of single-price rate plans. Where this is the case, it may be difficult to determine the precise cost to subscribers of the most commonly used bundled features such as call forwarding, voicemail, call waiting and three-way

calling. Because these features are bundled together with the overall subscription, their usage may not be indicated as line-item fees on a cellular phone bill or for the overall subscription.

- 70. Cellular rate plans are generally easier to understand today than they were only a few years ago. These plans include many "no charge" features but are marketed and sold based on the three most easily understood and most used services: (i) monthly voice call minutes anticipated to be used (or unlimited); (ii) monthly data volumes anticipated to be used (or unlimited). Monthly prepaid rate plans and so-called prepaid "pay as you go" plans are also based on this concept.
- 71. Cellular carriers do offer the more uncommon features and premium upgrades to the bundled features for well-defined expressed monthly fees. However, cellular subscribers are always charged by the cellular network operator for "no charge" included features, although they are not expressly revealed to the public.
- 72. A portion of what subscribers pay for their bundled rate plans each month goes toward included features and services, such as call forwarding, voicemail, call waiting and three-way calling. Cellular network operators always consider the precise capital expenditures and operating costs to provide these features as well as the marketing costs incurred to acquire new subscribers and the cost of *churn* (*i.e.* the cost of losing subscribers to competing operators and the cost to remove their access to the network). The cellular network operators maintain detailed statistics on subscriber behavior and demographics and can accurately predict usage of their networks by subscribers of any offered bundled rate-plans. The charges for these rate plans as well as the "pay as you go fees" always cover the included features and services regardless of whether these charges are itemized or not. Although there may not be a direct itemized fee

associated for each included feature and the usage thereof, the bundled fees charged to subscribers truly account for the costs that could otherwise be individually charged.

- operating costs of the bundled features increase, the cellular carrier's profit margins may decrease. The carriers typically raise the price of these bundled plans and/or offer alternative plans to account for the loss in revenue. Fierce competition among the carriers also contributes to changes in bundled rate plans but any changes made still consider the cost of included features. The revenue obtained by the cellular carriers always originates with the cellular subscribers and the bundled fees charged are always based on the entirety of the features included at "no charge" regardless of whether these fees are plainly revealed or not. This is why all the cellular carriers often change their bundled rate pans and/or also provide alternative plans.
- 74. Furthermore, many of the included features offered by the carriers at "no charge" are highly misleading. A good and appropriate example of this is voicemail. The carriers typically inform the market that voicemail service is included in a bundled rate plan for "no charge." But this is not strictly true.
- 75. The cellular carriers typically offer their subscribers several tiers of voicemail service. Some of these tiers cost subscribers an explicit and additional monthly fee to subscribe to a higher capacity voicemail box. For example, Verizon offers a voicemail box for an additional \$2.99 per month that can hold up to 40 messages with a message duration of up to five minutes per message. (Exhibit F.)
- 76. Additional fees like this reveal the egregious nature of ringless voicemail technology. Unbeknownst to cellular subscribers, their voicemail boxes, which are indeed a cellular subscriber service, can fill up with prerecorded voice messages from robo-calls. This

prevents more important and desired voice messages from being left and potentially costs subscribers additional fees to increase the size/capacity of the voicemail box. Thus, there is no way for a cellular subscriber to discover that the prerecorded voicemail messages left in the voicemail box are unwanted messages. And, it is very possible that subscribers may be forced to upgrade and pay for a higher capacity voicemail box that can hold the desired messages along with the unsolicited, undesired and uncontrolled prerecorded voice messages they receive. And, regardless of the capacity of a voicemail box, a subscriber would never know if there is enough capacity left to permit practical, meaningful and unimpeded use of their own voicemail service.

SUMMARY OF OPINIONS

- 77. The Defendant utilized a prerecorded voice message system capable of blasting up to 10,000 prerecorded voice messages per minute to cellular subscribers. This system was clearly designed to send prerecorded voice messages to cellular subscribers *en masse*.
- 78. It is my opinion, based on my knowledge, education, experience, expertise, training, my review of the relevant documents and the facts described above, that "ringless voicemail" messages initiated to cellular telephone numbers are in fact calls to those subscribers. These "ringless voicemail" message calls are made and initiated to cellular subscribers in the same way that text message calls are made and initiated to cellular subscribers.
- 79. It is my opinion, based on my knowledge, education, experience, expertise, training, my review of the relevant documents and the facts described above, that the Stratics Networks RVM voice message system is equipment which has the capacity to store or produce telephone numbers to be called, using a random or sequential number generator, or from a list or database of numbers, and to dial such numbers without human intervention.
 - 80. Based on my knowledge, education, experience, expertise, training, my review of

the relevant documents and the facts described above, it is my opinion that the Defendant utilized

an ATDS. Furthermore, it is my opinion that the Defendant initiated calls to the Plaintiff's

cellular telephone number and those of the proposed class members using an ATDS.

81. My opinions in this Declaration are based upon extensive experience in the

telecommunications industry, a detailed understanding of telecommunications systems, cellular

network operations and services and a detailed understanding of automatic telephone dialing

system technology. I hereby reserve the right to supplement or modify my opinions detailed in

this report to the extent that new information is made available through discovery or other

means.

82. I declare that the foregoing is true and correct, to the best of my knowledge,

subject to the laws of perjury of the United States.

Executed in Las Vegas, Nevada, on this 20th day of April, 2017.

Randall A. Snyder

Randall A. Snyder

EXHIBIT A

Professional Summary

Mr. Snyder has over 30 years of experience in telecommunications network and system architecture, engineering, design and technology. He has expertise in the fields of both wireline and wireless telecommunications networking technology. He has been retained as an expert witness in over 140 cases regarding telecommunications technology including over 100 Telephone Consumer Protection Act (TCPA) cases, patent and intellectual property cases, breach of contract cases and other areas of litigation regarding telecommunications network technology.

Mr. Snyder has taught many classes and seminars on both wireline and wireless telecommunication network technologies and has been a panelist and speaker at numerous conferences at the Institute of Electrical and Electronics Engineers (IEEE) and the Cellular Telecommunications and Internet Association (CTIA). He spent several years developing network technology standards within the American National Standards Institute (ANSI) and the Telecommunications Industry Association (TIA), providing technical contributions and authoring and editing telecommunications proposed standards documents. Most notably, ANSI-93, providing interconnection technology between wireline and wireless telecommunications networks.

Mr. Snyder is the co-author of the McGraw-Hill books "Mobile Telecommunications Networking with IS-41," and "Wireless Telecommunications Networking with ANSI-41, 2nd edition" published in 1997 and 2001, respectively. He holds 29 patents on telecommunications networking technology and has been hired as a consultant by the CTIA, as well as many wireline and wireless telecommunications companies, including Bell Laboratories, IBM, Google, McCaw Cellular, AirTouch, AirTouch International, AT&T Wireless, AT&T Mobility, Lucent, Nokia, Ericsson, Motorola, Samsung, Siemens, Nextwave, MCI, Daewoo, Globalstar, T-Mobile, Sprint, U.S. Cellular, Teleglobe Canada, Teledesic and others. He was also nominated in 2006 for a National Television Arts Emmy Award for Outstanding Achievement in Advanced Media Technology for unique wireless content distribution technology he designed while at Entriq, Inc.

Subject Matter Expertise

- Wireless and cellular network systems
- Wireless and cellular network architectures
- Network interconnectivity
- GSM, UMTS, LTE and ANSI-41 (CDMA) standards and networks
- Location Based Services (LBS)
- Short Message Service (SMS)
- Multimedia Message Service (MMS)
- Wireless Application Protocol (WAP)

- Call Processing and Calling Features
- Billing Systems Support (BSS)
- Operations, Administration, Maintenance & Provisioning (OAM&P, OSS)
- Signaling System No. 7 (SS7)
- LTE Diameter Signaling
- Multifrequency Signaling
- Automatic Telephone Dialing Systems (ATDS)

Notable Expert Witness Engagements

Retained as Plaintiff's testifying expert witness in Satterfield v. Simon & Schuster, Inc. No. 07-16356,
 D.C. No. CV-06-02893-CW Opinion. Appeal from the United States District Court for the Northern District of California. Opinion remanded by the United States Court of Appeals for the Ninth Circuit. Personally cited in opinion by N.R. Smith, Circuit Judge, June 19, 2009.

Result of expert opinion greatly expanded the TCPA and was followed by formal FCC Declaratory Rulings citing this case that text messages are calls as defined by the TCPA, and sending messages to a stored electronic list of telephone numbers falls within the definition of an Automatic Telephone Dialing System (ATDS).

- Retained as Plaintiff's testifying expert witness in *Gomez v. Campbell-Ewald Company*. No. 13-55486, D.C. No. 2:10-CV-02007-DMG-CW Opinion. Appeal from the United States District Court for the Central District of California. Opinion vacated by the United States Court of Appeals for the Ninth Circuit. Opinion by Fortunato P. Benavides, Circuit Judge. Filed September 19, 2014. Appellate court opinion upheld by the Supreme Court of the United States. Opinion by Justice Ginsburg, January 20, 2016.
- Retained by the Department of Justice Canada as Plaintiff's consulting expert in Commissioner of Competition v. Rogers Communications Inc., Bell Canada, Telus Corporation and the Canadian Wireless Telecommunications Association. Defendants accused of deceptive and misleading marketing practices related to premium text messages leading to improper charging for multimedia content delivery using various mobile billing mechanisms. Case settled favorably for the Canada Competition Bureau in May, 2016.
- Retained by IBM de México as testifying expert witness in *IBM de México Comercialización y Servicios, S. de R.L. de C.V. adverse Iusacell, S.A. de C.V.* International \$4B material breach of contract case under the International Chamber of Commerce International Court of Arbitration. A decision is currently being deliberated by the international court.

Education

Year College or University Degree

1984 Franklin and Marshall College B.A., Mathematics (minor in Astronomy)

Professional Experience

From: January 2007 To: Present

Organization: Wireless Research Services, LLC; Las Vegas, NV

Title: President and Founder

Summary: Technology and expert witness consulting services. Areas of subject matter expertise

include mobile and cellular networking, 2G, 2.5G, 3G, LTE, GSM, ANSI-41, LBS, SMS, MMS, WAP, SS7, Diameter Signaling, Automatic Telephone Dialing Systems (ATDS) and mobile multimedia systems. With this expertise, primary consulting is in

the area of system and product analysis, architecture, design, development,

management and marketing as well as patent preparation and development, expert reports, expert testimony and litigation support. Particular areas of expert witness experience include patent litigation and the Telephone Consumer Protection Act

(TCPA).

From: September 2007 To: August 2010

Organization: Finsphere Corporation; Bellevue, WA (acquired by Visa)

Title: Vice President Wireless Engineering and Product Management

Summary: Was among the first handful of employees at Finsphere prior to Series A funding. As

vice president of product management and wireless engineering and a member of the executive management team, was responsible for product management activities and wireless technology solutions for Finsphere's products. These products encompassed mobile location based software-as-a-service (SaaS) products offered primarily to financial institutions and banks. Responsibilities included product requirements and system functionality, strategic planning, R&D of new technologies, wireless network interconnectivity as well as wireless technology for Finsphere's products. Was also responsible for market strategies, white papers and development and management of

intellectual property and patent applications.

From: May 2004 To: April 2007

Organization: Entriq, Inc.; Carlsbad, CA

Title: Vice President Product Management

Summary: Was responsible for the entire product management team and system architecture for

Entriq's products and services. Products encompassed mobile and broadband pay media applications (specializing in video), digital rights management (DRM) and security solutions, e-commerce and m-commerce systems as well as ad management and delivery solutions for both broadband and mobile media services. Responsibilities also included network and protocol analysis, market analysis, evaluation of third-party software and services, all vendor contract negotiations, RFP responses and overall administrative responsibility for the entire product line. Was responsible for directing

and managing the technical writing department producing all user documentation associated with the products. Was nominated for a National Television Arts and Sciences Emmy Award for Outstanding Achievement in Advanced Media Technology for unique mobile technology designed, developed and commercially deployed as part of Entriq's solution.

From: February 2002 To: November 2003

Organization: m-Qube, Inc. (acquired by Verisign); Boston, MA

Title: Founder, Vice President Product Management and Carrier Marketing

Summary: Was responsible for the entire product management and carrier marketing teams,

member of the executive management team and one of the founders. Was responsible for all product management, system engineering and product strategy for all business conducted with the wireless industry and carriers. Was in charge of the market strategy and wireless network architecture for m-Qube's mobile marketing service, a value-added service offering mobile marketing solutions to wireless carriers using short message services (SMS) for GSM and CDMA networks. The service architecture enabled branded companies to deploy promotional marketing and messaging campaign dialogs with mobile subscribers via SMS. The network architecture required definition

and design of all aspects of the overall network including SMS technology, interconnectivity to the wireless carriers, signaling, traffic management, market requirements for features and services, network equipment specifications and OA&M.

From: April 2001 To: February 2002

Organization: Bitfone Corporation; Mountain View, CA

Title: Vice President Product Management and Marketing

Summary: Was responsible for the entire product management team and all of the company's

product definitions, strategies and positioning. Had direct responsibility for market and product requirements, market research, competitive analysis, product strategy and sales strategy. Bitfone's products included the iBroker, a mobile Internet technology

infrastructure platform to enhance WAP, MMS, mobile e-mail and wireless

messaging. Was also responsible for the mProve product (obtained via merger with Digital Transit, Inc.) providing over-the-air firmware and software update technology

to mobile devices.

From: November 2000 To: April 2001

Organization: Openwave Systems (via merger of Phone.com and Software.com); Redwood City, CA

Title: Executive Director Emerging Technologies

Summary: Was responsible for new 3G technologies and providing market and product plans for

those technologies for the entire product line. Primary responsibility for the 3GPP Multimedia Messaging Service (MMS), collecting market requirements from

customers, developing corporate strategy for MMS and preparing the organization for

additional development of the product. In addition, taught wireless technology classes to the different departments at Openwave and educated them on wireless service provider strategies and network technologies.

From: March 2000 To: November 2000

Organization: @Mobile and Software.com (via acquisition); Santa Barbara, CA

Title: Director Wireless Product Management

Summary: Was responsible for the product managers and for all of the wireless internet

infrastructure products. Responsibilities included the overall market and product strategy for Software.com's wireless e-mail, short message service, instant messaging and unified messaging products. Was responsible for the overall revenues generated from these products based on detailed product plans and internal organizational planning. Much of his time was spent working with the executive management team

and the sales directors on corporate market strategy.

From: December 1999 To: March 2000

Organization: FreeSpace Communications, Inc.; Palo Alto, CA

Title: Consulting Network Systems Engineer

Summary: Was responsible for the complete design of the backbone network architecture for a

new broadband fixed wireless data network. This new architecture incorporated DSL as the backbone network technology. The network architecture required definition and design of all aspects of the overall network plan including DSL technology, IP technology, ATM technology, interconnectivity to the PSTN, operations signaling, traffic engineering, market requirements for network features and services, network

equipment specifications and OA&M.

From: April 1992 To: December 1999

Organization: Synacom Technology, Inc.; San Jose, CA

Title: Executive Director Product Marketing and Management

Summary:

1998 – 1999 Executive Director Product Marketing and Management

 Responsible for managing the entire product management and marketing department of Synacom Technology, including market research and planning, product management and market communications. Lead the entire design, definition and product direction of all aspects of Synacom's products.

1997 – 1998 Director Systems Engineering

 Responsible for coordinating and managing the overall functional and requirements specifications for all Synacom's products as well as the detailed test

plans used for alpha system testing of those products. Also responsible for directing and managing the technical writing department producing all of the user documentation associated with all of the products. Provided the primary sales engineering support for sales and marketing and was involved in nearly every aspect of the product lifecycle.

1996 - 1997

Director Consulting Services and Principal Engineer

Responsible for obtaining, coordinating and managing all technical consulting projects performed by the company. These projects included wireless network architecture and design for both IS-41 and GSM networks for dozens of client companies (carriers and equipment manufacturers). In this role, continued as a member of both the ANSI/TIA TR45.2 Subcommittee for cellular radio intersystem operations standards and the ANSI/TIA TR46 Committee for 1900 MHz GSM PCS standards. Major contributor to TR46 in the area of GSM-to-IS-41 network interworking. Also authored, edited and published TIA standard specification IS-93 for cellular network interconnections to the PSTN and ISDN.

1992 - 1996

Principal Engineer

- Consulted for McCaw Cellular, AT&T Wireless, AirTouch Cellular, AirTouch Satellite Services, Globalstar, Nokia, MCI, Sprint PCS, XYPoint, NextWave, NewNet American Personal Communications, CTIA and several other national and international wireless telecommunications companies.
- Wrote wireless network design and analysis papers including HLR specifications, Authentication Center specifications, PCS network design, short message service (SMS) design, intelligent network applications of wireless technology and in-house expert in signaling protocols. Extensive experience with Signaling System No. 7, including both protocol implementation and design. Authored the Standard Requirements Document for the SS7-based A-interface between the base station and MSC used throughout the TIA. Also involved in the design of the Bellcore WACS/PACS technology, digital cellular network service and feature descriptions, SCPs and HLRs. Extensive experience developing the architecture and design of distributed intelligent networks including, SS7, cellular, PCS, AIN and WIN networks. Key member of the original Cellular Digital Packet Data (CDPD) architecture and design team. Designed the CDPD air interface protocol emulator developed and marketed by AirLink Communications, Inc.

From: December 1990 To: April 1992

Organization: AT&T Bell Laboratories; Whippany, NJ
Title: Consulting Member of the Technical Staff
Summary: Evaluated wireless technology services for

Evaluated wireless technology services for the Wireless Systems Architecture group. Also participated as a system engineer on the design of the Global System for Mobile (GSM) communication architecture and a software engineer developing the base station controller (BSC) for GSM. Also responsible for planning, coordinating, designing and testing the SS7 protocol software for the GSM A-interface between the BSC, MSC and operations and maintenance center (OMC). High-level and detailed

design specifications were developed to coordinate the protocol testing between two remote laboratories. Provided the traffic analysis and traffic engineering of call traffic for the BSC. Specifically designed and developed the dynamic traffic overload control subsystem for the BSC. Presentations were given to technical staffs at multiple Bell Laboratories facilities supporting this work.

From: May 1987 To: December 1990

Organization: DGM&S, Inc.; Mt. Laurel, NJ
Title: Senior Staff Consultant

Summary: Responsible for the design, development and test coordination of an advanced

intelligent network applications platform for a service control point (SCP). Also spent several years as a consulting software engineer for Siemens AG, developing and testing SS7 and call control software for the EWSD digital switching system for international as well as U.S. national network implementations. This work involved extensive travel to both Frankfurt and Munich, Germany for software system design and testing. Also involved in the concept, design and technical marketing of

proprietary enabling technology software products for SS7 and ISDN.

From: May 1986 To: May 1987

Organization: ADP, Inc.; Mt. Laurel, NJ

Title: Senior Software Engineer and Analyst

Summary: Responsible for the design and development of data communications and real time

database application software for a host data center that provided real time financial information to large brokerage houses. Data communication protocol expertise in

HDLC, RS-232 and IBM BiSync.

From: June 1984 To: May 1986

Organization: C3, Inc.; Cape May, NJ

Title: Consulting Systems Analyst and Software Engineer

Summary: Civilian consulting systems analyst and engineer to the U.S. Coast Guard Electronics

Engineering Center (EECEN) for C3, Inc. Developed sophisticated database software for shipboard use including inventory and law enforcement applications. The work included the follow-through of the entire project lifecycle including writing of

requirements, functional, design and program specifications, coding, debugging, alpha and beta testing, release, shipboard installation and continuing technical support of the product. Received a personal commendation from Admiral W.F. Merlin, Chief, Office of Command, Control and Communications, for successful efforts on these projects.

Professional Affiliations, Achievements & Awards

- Personal commendation from Admiral W.F. Merlin, Chief, Office of Command, Control and Communications, USCG (1986)
- Nominated, Technology and Engineering Emmy Award for Outstanding Achievement in Advanced Media Technology, 2006

Patents, Publications & Citations

Issued Patents

Patent	Date	Description
US 9,185,123	11/10/2015	Systems and Method for Mobile Identity Protection for Online User Authentication
US 9,154,952	10/6/2015	Systems and Methods for Authenticating a User of a Computer Application, Network, or Device Using a Wireless Device
US 9,092,803	7/28/2015	System and Method to Initiate a Mobile Data Communication Utilizing a Trigger System
US 8,954,102	2/10/2015	System and Method for Determining and Delivering Appropriate Multimedia Content to Data Communication Devices
US 8,938,215	1/20/2015	System and Method to Initiate a Mobile Data Communication Utilizing a Trigger System
US 8,923,902	12/30/2014	Mobile Messaging Short Code Translation and Routing System and Method
US 8,839,394	9/16/2014	Systems and Methods for Authenticating a User of a Computer Application, Network, or Device Using a Wireless Device
US 8,831,564	9/9/2014	System and Method for Mobile Identity Protection Using Mobile Device Signaling Network Derived Location Pattern Recognition
US 8,819,141	8/26/2014	Centralized Mobile and Wireless Messaging Opt-out Registry System and Method
US 8,761,732	6/24/2014	System and Method to Initiate a Mobile Data Communication Utilizing a Trigger System
US 8,670,753	3/11/2014	System and Method for Determining and Delivering Appropriate Multimedia Content to Data Communication Devices
Israel 200949	1/10/2014	System and Method for Automated Analysis Comparing a Wireless Device Location with Another Geographic Location
Mexico 308720 B	12/4/2013	Sistema y Metodo para el Analisis Automatizado que Compara una Ubicacion del Dispositivo Inalambrico con Otra Ubicacion Geografica

US 8,588,748	11/19/2013	System and Method for Mobile Identity Protection of a User of Multiple Computer Applications, Networks or Devices
US 8,437,784	5/7/2013	System and Method to Initiate a Mobile Data Communication Utilizing a Trigger System
US 8,374,634	2/12/2013	System and Method for Automated Analysis Comparing a Wireless Device Location with Another Geographic Location
US 8,280,348	10/2/2012	System and Method for Mobile Identity Protection Using Mobile Device Signaling Network Derived Location Pattern Recognition
US 8,155,677	4/10/2012	Mobile Messaging Short Code Translation and Routing System and Method
New Zealand 580499	8/31/2012	System and Method for Automated Analysis Comparing a Wireless Device Location with Another Geographic Location
US 8,131,262	3/6/2010	System and Method to Initiate a Mobile Data Communication Utilizing a Trigger System
US 8,116,731	2/14/2012	System and Method for Mobile Identity Protection of a User of Multiple Computer Applications, Networks or Devices
Australia 2008/115299	2/9/2012	System and Method for Automated Analysis Comparing a Wireless Device Location with Another Geographic Location
S. Africa 2009/06947	1/26/2011	System and Method for Automated Analysis Comparing a Wireless Device Location with Another Geographic Location
US 7,792,518	9/7/2010	System and Method to Initiate a Mobile Data Communication Utilizing a Trigger System
US 7,403,788	7/22/2008	System and Method to Initiate a Mobile Data Communication Utilizing a Trigger System
US 6,128,389	10/3/2000	Authentication Key Management System and Method
US 5,970,144	10/19/1999	Secure Authentication-Key Management System and Method for Mobile Communications
US 5,850,445	12/15/1998	Authentication Key Management System and Method
US 5,799,084	8/25/1998	System and Method for Authenticating Cellular Telephonic Communication

Publications

- 1. What Workers Want from Wireless by Randall A. Snyder; April 15, 2004. America's Network, Advanstar Communications, Santa Ana, California USA.
- 2. Snyder, Randall A. and Gallagher, Michael D. Wireless Telecommunications Networking with ANSI-41 Second Edition; McGraw-Hill, New York, NY USA; © Copyright 2001 Randall A. Snyder and Michael D. Gallagher. Foreword by Tom Wheeler, former Chairman, Federal Communications Commission
- 3. <u>Forecasting SS7 Traffic</u> by Randall A. Snyder; November 1, 2000. Wireless Review, Volume 17, Number 21, Intertec Publishing, Overland Park, KS USA.
- 4. Gallagher, Michael D. and Snyder, Randall A. Mobile Telecommunications Networking with IS-41; McGraw-Hill, New York, NY USA; © Copyright 1997 Michael D. Gallagher and Randall A. Snyder.
- 5. <u>IS-41/GSM Interoperability</u> by Randy Snyder; December, 1995, Cellular Networking Perspectives, Cellular Networking Perspectives, LTD, Calgary, Alberta, Canada.

Citations

- 1. Commendation from Admiral W.F. Merlin, Chief, Office of Command, Control and Communications, USCG (1986).
- 2. Method and Apparatus for Routing Short Messages, US Patent #6308075, Issued October 23, 2001.
- 3. Mediation Software for Delivery of Interactive Mobile Messaging and Personalized Content to Mobile Devices. Patent Application # 20020120779, August 29, 2002.
- 4. Automatic In-Line Messaging System, US Patent #6718178, Issued April 6, 2004.
- 5. Method and System for Wireless Instant Messaging, US Patent #7058036, Issued June 6, 2006.
- 6. <u>United States Court of Appeals for the Ninth Circuit</u>. Satterfield v. Simon & Schuster, Inc. No. 07-16356, D.C. No. CV-06-02893-CW Opinion. Appeal from the United States District Court for the Northern District of California. Opinion by N.R. Smith, Circuit Judge. Filed June 19, 2009.

Litigation Support Experience

Expert Engagement:

Type of Matter: Telephone Consumer Protection Act (TCPA), 47 U.S.C. § 227 related to

unlawful cellular telephone calls

Law Firm: Haines & Krieger, LLC

Case Name: Miles v. Receivables Performance Management, LLC

Services Provided: Testifying expert, expert reports for plaintiff

Disposition: Ongoing Date: 2017

Expert Engagement:

Type of Matter: Telephone Consumer Protection Act (TCPA), 47 U.S.C. § 227 related to

unlawful cellular telephone calls

Law Firm: Law Office of Chris R. Miltenberger, PLLC

Case Name: Mahoney v. TT of Pine Ridge, Inc. Services Provided: Testifying expert for plaintiff

Disposition: Ongoing Date: 2016

Expert Engagement:

Type of Matter: Telephone Consumer Protection Act (TCPA), 47 U.S.C. § 227 related to

unlawful cellular telephone calls

Law Firm: Haines & Krieger, LLC

Case Name: Toldi v. Hyundai Capital America Services Provided: Testifying expert for plaintiff

Disposition: Ongoing Date: 2017

Expert Engagement:

Type of Matter: Telephone Consumer Protection Act (TCPA), 47 U.S.C. § 227 class action

related to short message service (SMS) technology

Law Firm: McGuire Law, P.C.
Case Name: Serban v. CarGurus, Inc.
Testifying expert for plaintiff

Disposition: Ongoing Date: 2017

Expert Engagement:

Type of Matter: Telephone Consumer Protection Act (TCPA), 47 U.S.C. § 227 related to

unlawful cellular telephone calls

Law Firm: Haines & Krieger, LLC

Case Name: Marshall v. The CBE Group, Inc. Services Provided: Testifying expert for plaintiff

Disposition: Ongoing

Date: 2017

Expert Engagement:

Type of Matter: Telephone Consumer Protection Act (TCPA), 47 U.S.C. § 227 related to

unlawful cellular telephone calls

Law Firm: Keogh Law, Ltd.

Case Name: Glasser v. Hilton Grand Vacations, Inc.
Services Provided: Testifying expert, expert reports for plaintiff

Disposition: Ongoing Date: 2017

Expert Engagement:

Type of Matter: Telephone Consumer Protection Act (TCPA), 47 U.S.C. § 227 class action

related to short message service (SMS) technology

Law Firm: Carey Rodriguez Milian Gonya LLP
Case Name: Farnham v. Caribou Coffee Company, Inc.
Services Provided: Testifying expert, expert reports for plaintiff

Disposition: Ongoing Date: 2017

Expert Engagement:

Type of Matter: Telephone Consumer Protection Act (TCPA), 47 U.S.C. § 227 related to

unlawful cellular telephone calls

Law Firm: Bursor & Fisher, P.A.

Case Name: Hunter v. Time Warner Cable Inc.

Services Provided: Testifying expert, expert reports for plaintiff

Disposition: Ongoing Date: 2016

Expert Engagement:

Type of Matter: Unlawful Recording of and Eavesdropping Upon Confidential Communications

(Cal. Penal. Code §§ 632) and Unlawful Wiretapping (Cal. Penal. Code §§ 631)

class action related to unlawful recording of telephone conversations

Law Firm: Da Vega Fisher Mechtenberg LLP

Case Name: Gruber v. Yelp, Inc.

Services Provided: Testifying expert for plaintiff

Disposition: Ongoing Date: 2016

Expert Engagement:

Type of Matter: Telephone Consumer Protection Act (TCPA), 47 U.S.C. § 227 related to

unlawful cellular telephone calls

Law Firm: Law Office of Michael A. Ziegler, P.L. Case Name: Francescutti v. The CBE Group, Inc.

Services Provided: Testifying expert for plaintiff

Disposition: Ongoing Date: 2016

Expert Engagement:

Type of Matter: Telephone Consumer Protection Act (TCPA), 47 U.S.C. § 227 related to

unlawful cellular telephone calls

Law Firm: Haines & Krieger, LLC

Case Name: Self-Forbes v. Advanced Call Center Technologies, LLC

Services Provided: Testifying expert, expert reports for plaintiff

Disposition: Ongoing Date: 2016

Expert Engagement:

Type of Matter: Telephone Consumer Protection Act (TCPA), 47 U.S.C. § 227 class action

related to short message service (SMS) technology

Law Firm: Engstrom, Lipscomb & Lack

Case Name: Nghiem v. Dick's Sporting Goods, Inc.

Services Provided: Testifying expert for plaintiff

Disposition: Dismissed Date: 2016

Expert Engagement:

Type of Matter: Intellectual property (patents) related to short message service (SMS) technology

Law Firm: United States Department of Justice (DOJ)

Case Name: CellCast Technologies, LLC v. The United States of America

Services Provided: Testifying expert, expert reports for defendant

Disposition: Ongoing Date: 2016

Expert Engagement:

Type of Matter: Telephone Consumer Protection Act (TCPA), 47 U.S.C. § 227 related to

unlawful cellular telephone calls

Law Firm: McGuire Law, P.C.

Case Name: Katz v. American Honda Motor Co., Inc.

Services Provided: Testifying expert, expert reports, depositions for plaintiff

Disposition: Ongoing Date: 2016

Expert Engagement:

Type of Matter: Telephone Consumer Protection Act (TCPA), 47 U.S.C. § 227 related to

unlawful cellular telephone calls

Law Firm: Bursor & Fisher, P.A. Case Name: Morris v. SolarCity Corp.

Services Provided: Testifying expert, expert reports, depositions for plaintiff

Disposition: Ongoing Date: 2016

Expert Engagement:

Type of Matter: Telephone Consumer Protection Act (TCPA), 47 U.S.C. § 227 class action

related to short message service (SMS) technology

Law Firm: Keller Rohrback, L.L.P.
Case Name: Wick v. Twilio, Inc.

Services Provided: Consulting expert for plaintiff

Disposition: Ongoing Date: 2016

Expert Engagement:

Type of Matter: Telephone Consumer Protection Act (TCPA), 47 U.S.C. § 227 related to

unlawful cellular telephone calls

Law Firm: Edelman, Combs, Latturner & Goodwin, LLC Case Name: Bailey v. Santander Consumer USA, Inc.

Services Provided: Testifying expert, expert reports, depositions for plaintiff

Disposition: Settled Date: 2016

Expert Engagement:

Type of Matter: Telephone Consumer Protection Act (TCPA), 47 U.S.C. § 227 class action

related to unlawful cellular telephone calls

Law Firm: Bailey & Glasser LLP

Case Name: Newhart v. Quicken Loans, Inc. et al.

Services Provided: Testifying expert, expert reports for plaintiff

Disposition: Ongoing Date: 2016

Expert Engagement:

Type of Matter: Telephone Consumer Protection Act (TCPA), 47 U.S.C. § 227 related to

unlawful cellular telephone calls

Law Firm: Manchee & Manchee, PC

Case Name: Gibbs v. Ocwen Loan Servicing, LLC

Services Provided: Testifying expert for plaintiff

Disposition: Settled Date: 2016

Expert Engagement:

Type of Matter: Telephone Consumer Protection Act (TCPA), 47 U.S.C. § 227 related to

unlawful cellular telephone calls

Law Firm: Maney & Gordon, P.A.

Case Name: Holland v. Keesler Federal Credit Bureau

Services Provided: Testifying expert, expert reports, depositions for plaintiff

Disposition: Ongoing Date: 2016

Expert Engagement:

Type of Matter: Telephone Consumer Protection Act (TCPA), 47 U.S.C. § 227 class action

related to short message service (SMS) technology

Law Firm: McGuire Law, P.C.

Case Name: Spencer v. Kohl's Department Stores, Inc. Services Provided: Testifying expert, expert reports for plaintiff

Disposition: Ongoing Date: 2016

Expert Engagement:

Type of Matter: Telephone Consumer Protection Act (TCPA), 47 U.S.C. § 227 class action

related to unlawful cellular telephone calls

Law Firm: Parisi & Havens LLP Case Name: Slovin v. SunRun. Inc.

Services Provided: Testifying expert for plaintiff

Disposition: Ongoing Date: 2016

Expert Engagement:

Type of Matter: Telephone Consumer Protection Act (TCPA), 47 U.S.C. § 227 related to

unlawful cellular telephone calls

Law Firm: Law Office of Chris R. Miltenberger, PLLC

Case Name: Harrington v. RoundPoint Mortgage Servicing Corporation Services Provided: Testifying expert, expert reports, depositions for plaintiff

Disposition: Ongoing Date: 2016

Expert Engagement:

Type of Matter: Telephone Consumer Protection Act (TCPA), 47 U.S.C. § 227 related to short

message service (SMS) technology

Law Firm: Law Office of Troy D. Krenning, LLC

Case Name: Newton v. Comdata, Inc.

Services Provided: Testifying expert, expert reports for plaintiff

Disposition: Settled Date: 2016

Expert Engagement:

Type of Matter: Telephone Consumer Protection Act (TCPA), 47 U.S.C. § 227 related to

unlawful cellular telephone calls

Law Firm: Bursor & Fisher, P.A.

Case Name: Yerkes v. RGS, Financial, Inc. Services Provided: Testifying expert for plaintiff

Disposition: Settled Date: 2016

Expert Engagement:

Type of Matter: Telephone Consumer Protection Act (TCPA), 47 U.S.C. § 227 class action

related to short message service (SMS) technology

Law Firm: Manning Law APC

Case Name: Vizcarra v. Macys.com Inc. et al.

Services Provided: Testifying expert, expert reports for plaintiff

Disposition: Settled Date: 2016

Expert Engagement:

Type of Matter: Telephone Consumer Protection Act (TCPA), 47 U.S.C. § 227 related to

unlawful cellular telephone calls

Law Firm: Sulaiman Law Group, Ltd.

Case Name: Deaderick v. Contract Callers, Inc. Services Provided: Testifying expert for plaintiff

Disposition: Withdrawn Date: 2016

Expert Engagement:

Type of Matter: Telephone Consumer Protection Act (TCPA), 47 U.S.C. § 227 class action

related to short message service (SMS) technology

Law Firm: McGuire Law, P.C.

Case Name: Zeidel v. A&M (2015) LLC

Services Provided: Testifying expert, expert reports for plaintiff

Disposition: Ongoing Date: 2015–2016

Expert Engagement:

Type of Matter: Telephone Consumer Protection Act (TCPA), 47 U.S.C. § 227 class action

related to unlawful cellular telephone calls

Law Firm: Marquis Aurbach Coffing

Case Name: Fisher v. MJ Christensen Jewelers, LLC Services Provided: Testifying expert, expert reports for plaintiff

Disposition: Ongoing Date: 2015–2016

Expert Engagement: Competition Act, § 74.1 R.S.C. 1985, c. C-34 class action related to false and

Type of Matter: misleading advertisements related to premium text messaging and short message

service (SMS) technology

Law Firm: Department of Justice Canada

Case Name: Commissioner of Competition v. Rogers Communications Inc., Bell Canada,

Telus Corporation and the Canadian Wireless Telecommunications Association

Services Provided: Consulting expert for plaintiff

Disposition: Settled Date: 2013–2016

Expert Engagement:

Type of Matter: Telephone Consumer Protection Act (TCPA), 47 U.S.C. § 227 related to

unlawful cellular telephone calls

Law Firm: Maney & Gordon, P.A.

Case Name: Ritter v. Wells Fargo Bank, N.A. Services Provided: Testifying expert for plaintiff

Disposition: Settled

Date: 2015

Expert Engagement:

Type of Matter: Telephone Consumer Protection Act (TCPA), 47 U.S.C. § 227 class action

related to short message service (SMS) technology

Law Firm: Bock & Hatch, LLC
Case Name: Kozlow v. Shopkick, Inc.
Services Provided: Testifying expert for plaintiff

Disposition: Withdrawn Date: 2015

Expert Engagement:

Type of Matter: Telephone Consumer Protection Act (TCPA), 47 U.S.C. § 227 class action

related to unlawful cellular telephone calls

Law Firm: Edelson PC

Case Name: Suttles v. Mutual of Omaha Insurance Company Services Provided: Testifying expert, expert reports for plaintiff

Disposition: Ongoing Date: 2015

Expert Engagement:

Type of Matter: Telephone Consumer Protection Act (TCPA), 47 U.S.C. § 227 related to

unlawful cellular telephone calls

Law Firm: Manchee & Manchee, PC

Case Name: Gebray v. Ocwen Loan Servicing, LLC
Services Provided: Testifying expert, expert reports for plaintiff

Disposition: Ongoing Date: 2015

Expert Engagement:

Type of Matter: Invasion of Privacy Act (Cal. Penal. Code §§ 630) class action related to

unlawful recording of telephone conversations

Law Firm: Keller Grover LLP and Law Offices of Scot D. Bernstein

Case Name: Saunders v. Cabela's Incorporated

Services Provided: Testifying expert, expert reports for plaintiff

Disposition: Settled Date: 2015

Expert Engagement:

Type of Matter: Telephone Consumer Protection Act (TCPA), 47 U.S.C. § 227 class action

related to short message service (SMS) technology

Law Firm: McGuire Law, P.C.

Case Name: Lozano v. Avenue Stores, LLC Services Provided: Consulting expert for plaintiff

Disposition: Settled Date: 2015

Expert Engagement:

Type of Matter: Telephone Consumer Protection Act (TCPA), 47 U.S.C. § 227 class action

related to short message service (SMS) technology

Law Firm: Bailey & Glasser LLP
Case Name: Phillips v. Mozes, Inc. et al.

Services Provided: Testifying expert, expert reports, depositions for plaintiff

Disposition: Settled Date: 2015

Expert Engagement:

Type of Matter: Intellectual property (patents) related to mobile location based technology and

short message service (SMS) technology

Law Firm: Knobbe, Martens, Olson & Bear, LLP

Case Name: TeleCommunication Systems, Inc. v. Airbus DS Communications, Inc.

Services Provided: Testifying expert for defendant

Disposition: Settled Date: 2015

Expert Engagement:

Type of Matter: Intellectual property (patents) related to machine-to-machine (M2M) mobile

technology

Law Firm: Paul Hastings LLP

Case Name: M2M Solutions LLC v. Novatel Wireless Solutions, Inc.

Services Provided: Testifying expert, USPTO affidavits for patent reexamination for defendant

Disposition: Ongoing Date: 2015

Expert Engagement:

Type of Matter: Telephone Consumer Protection Act (TCPA), 47 U.S.C. § 227 class action

related to short message service (SMS) technology

Law Firm: Mazie Slater Katz & Freeman LLC

Case Name: Meyer v. Bebe Stores Inc.

Services Provided: Testifying expert, expert reports for plaintiff

Disposition: Ongoing Date: 2015

Expert Engagement:

Type of Matter: Telephone Consumer Protection Act (TCPA), 47 U.S.C. § 227 class action

related to short message service (SMS) technology

Law Firm: Strategic Legal Practices, APC
Case Name: Haghayeghi v. Guess Inc.
Services Provided: Testifying expert for plaintiff

Disposition: Settled Date: 2015

Expert Engagement:

Type of Matter: Telephone Consumer Protection Act (TCPA), 47 U.S.C. § 227 related to

unlawful cellular telephone calls

Law Firm: Bailey & Glasser LLP

Case Name: Stein v. Monterey Financial Services, Inc. Services Provided: Testifying expert, expert reports for plaintiff

Disposition: Ongoing Date: 2015

Expert Engagement:

Type of Matter: Telephone Consumer Protection Act (TCPA), 47 U.S.C. § 227 related to

unlawful cellular telephone calls

Law Firm: Aronovitz Law

Case Name: McKee v. Navient Solutions, Inc.
Services Provided: Testifying expert for plaintiff

Disposition: Ongoing Date: 2015

Expert Engagement:

Type of Matter: Telephone Consumer Protection Act (TCPA), 47 U.S.C. § 227 class action

related to short message service (SMS) technology

Law Firm: Butsch Roberts & Associates, LLC Case Name: Moore v. Family Dollar Stores, Inc.

Services Provided: Testifying expert, expert reports for plaintiff

Disposition: Settled Date: 2015

Expert Engagement:

Type of Matter: Telephone Consumer Protection Act (TCPA), 47 U.S.C. § 227 related to

unlawful cellular telephone calls

Law Firm: Bailey & Glasser LLP

Case Name: Jones v. FMS Corp., U.S. Department of Education

Services Provided: Testifying expert for plaintiff

Disposition: Settled Date: 2015

Expert Engagement:

Type of Matter: Telephone Consumer Protection Act (TCPA), 47 U.S.C. § 227 class action

related to short message service (SMS) technology

Law Firm: Tycko & Zavareei LLP

Case Name: Lathrop v. Uber Technologies, Inc. Services Provided: Testifying expert for plaintiff

Disposition: Ongoing Date: 2015

Expert Engagement:

Type of Matter: Invasion of Privacy Act (Cal. Penal. Code §§ 630) class action related to

unlawful recording of telephone conversations

Law Firm: Keller Grover LLP and Law Offices of Scot D. Bernstein

Case Name: Roberts v. Wyndham International, Inc.

Services Provided: Testifying expert, expert reports, depositions for plaintiff

Disposition: Settled Date: 2015

Expert Engagement:

Type of Matter: Intellectual property (patents) related to short message service (SMS) technology

Law Firm: Paul Hastings LLP

Case Name: Nova Transforma Technologies, LLC v. AT&T Mobility LLC

Services Provided: Consulting expert, USPTO affidavits for patent reexamination for defendant

Disposition: Settled Date: 2015

Expert Engagement:

Type of Matter: Telephone Consumer Protection Act (TCPA), 47 U.S.C. § 227 related to

unlawful cellular telephone calls

Law Firm: Maney & Gordon, P.A.

Case Name: Drew v. Ocwen Loan Servicing, LLC

Services Provided: Testifying expert, expert reports, depositions, trial testimony for plaintiff

Disposition: Plaintiff obtained statutory damages for willful TCPA violations

Date: 2015

Expert Engagement:

Type of Matter: Telephone Consumer Protection Act (TCPA), 47 U.S.C. § 227 class action

related to unlawful cellular telephone calls

Law Firm: Parisi & Havens LLP

Case Name: Kleja v. Transworld Systems, Inc.

Services Provided: Testifying expert, expert reports for plaintiff

Disposition: Settled Date: 2015

Expert Engagement:

Type of Matter: Invasion of Privacy Act (Cal. Penal. Code §§ 630) class action related to

unlawful recording of telephone conversations

Law Firm: Keller Grover LLP and Law Offices of Scot D. Bernstein

Case Name: McCabe v. Six Continents Hotels, Inc.

Services Provided: Testifying expert, expert reports, depositions for plaintiff

Disposition: Settled Date: 2015

Expert Engagement:

Type of Matter: Material Breach of Contract Law Firm: Hogan Lovells USA LLP

Case Name: IBM de México Comercialización y Servicios, S. de R.L. de C.V. adverse

Iusacell, S.A. de C.V.

Services Provided: Testifying expert, expert reports for IBM México

Disposition: Ongoing Date: 2014–2016

Expert Engagement:

Type of Matter: Telephone Consumer Protection Act (TCPA), 47 U.S.C. § 227 class action

related to unlawful cellular telephone calls

Law Firm: Caddell & Chapman

Case Name: Hooker v. Sirius XM Radio, Inc. Services Provided: Testifying expert for plaintiff

Disposition: Settled
Date: 2014–2016

Expert Engagement:

Type of Matter: Telephone Consumer Protection Act (TCPA), 47 U.S.C. § 227 class action

related to short message service (SMS) technology

Law Firm: Heyrich Kalish McGuigan, PLLC

Case Name: Gragg v. Orange Cab Company, Inc. et al

Services Provided: Testifying expert, expert reports, depositions for plaintiff

Disposition: Settled Date: 2013–2016

Expert Engagement:

Type of Matter: Telephone Consumer Protection Act (TCPA), 47 U.S.C. § 227 class action

related to unlawful cellular telephone calls

Law Firm: McGuire Law, P.C.

Case Name: Valladares v. Blackboard, Inc. Services Provided: Testifying expert for plaintiff

Disposition: Settled Date: 2014–2015

Expert Engagement:

Type of Matter: Telephone Consumer Protection Act (TCPA), 47 U.S.C. § 227 related to

unlawful cellular telephone calls

Law Firm: Lemberg & Associates LLC

Case Name: Hamlett et al v. Santander Consumer USA Inc. et al Services Provided: Testifying expert, expert reports, depositions for plaintiff

Disposition: Settled Date: 2014–2015

Expert Engagement:

Type of Matter: Telephone Consumer Protection Act (TCPA), 47 U.S.C. § 227 class action

related to unlawful cellular telephone calls

Law Firm: Parisi & Havens LLP

Case Name: Lofton v. Verizon Wireless LLC

Services Provided: Testifying expert, expert reports for plaintiff

Disposition: Settled Date: 2014–2015

Expert Engagement:

Type of Matter: Telephone Consumer Protection Act (TCPA), 47 U.S.C. § 227 class action

related to short message service (SMS) technology

Law Firm: McGuire Law, P.C.

Case Name: Spencer v. AT&T Digital Life, Inc.

Services Provided: Testifying expert, expert reports, depositions for plaintiff

Disposition: Settled Date: 2014

Expert Engagement:

Type of Matter: Telephone Consumer Protection Act (TCPA), 47 U.S.C. § 227 class action

related to short message service (SMS) technology

Law Firm: Butsch Roberts & Associates, LLC

Case Name: In re: Life Time Fitness, Inc. Services Provided: Consulting expert for plaintiff

Disposition: Settled Date: 2014

Expert Engagement:

Type of Matter: Telephone Consumer Protection Act (TCPA), 47 U.S.C. § 227 class action

related to unlawful cellular telephone calls

Law Firm: Morgan & Morgan, P.A.

Case Name: Cauchon v. Whetstone Partners, LLC, d/b/a eTitleLoan

Services Provided: Testifying expert, expert reports for plaintiff

Disposition: Settled Date: 2014

Expert Engagement:

Type of Matter: Intellectual property (patents) related to short message service (SMS) technology

Law Firm: McGuireWoods LLP

Case Name: Comcast Cable Communications, LLC v. Sprint Communications Company L.P.

Services Provided: Consulting expert for defendant

Disposition: Ongoing Date: 2014

Expert Engagement:

Type of Matter: Telephone Consumer Protection Act (TCPA), 47 U.S.C. § 227 class action

related to short message service (SMS) technology

Law Firm: Bock & Hatch, LLC
Case Name: Kozlow v. Hangtime, Inc.

Services Provided: Testifying expert, expert reports for plaintiff

Disposition: Settled Date: 2014

Expert Engagement:

Type of Matter: Telephone Consumer Protection Act (TCPA), 47 U.S.C. § 227 class action

related to unlawful cellular telephone calls

Law Firm: Parisi & Havens LLP Case Name: In re Collecto, Inc.

Services Provided: Testifying expert, expert reports for plaintiff

Disposition: Ongoing Date: 2014

Expert Engagement:

Type of Matter: Telephone Consumer Protection Act (TCPA), 47 U.S.C. § 227 class action

related to unlawful cellular telephone calls

Law Firm: Edelson PC

Case Name: Birchmeier et al v. Caribbean Cruise Line, Inc. et al

Services Provided: Testifying expert, expert reports for plaintiff

Disposition: Settled Date: 2014

Expert Engagement:

Type of Matter: Telephone Consumer Protection Act (TCPA), 47 U.S.C. § 227 class action

related to short message service (SMS) technology

Law Firm: Keogh Law, Ltd.
Case Name: Johnson v. Yahoo! Inc.

Services Provided: Testifying expert, expert reports, depositions for plaintiff

Disposition: Ongoing Date: 2014

Expert Engagement:

Type of Matter: Telephone Consumer Protection Act (TCPA), 47 U.S.C. § 227 class action

related to short message service (SMS) technology

Law Firm: Jacobs Kolton, Chtd. Case Name: Nunes v. Twitter, Inc.

Services Provided: Consulting expert for plaintiff

Disposition: Ongoing Date: 2014

Expert Engagement:

Type of Matter: Telephone Consumer Protection Act (TCPA), 47 U.S.C. § 227 class action

related to unlawful cellular telephone calls

Law Firm: Manning Law, PLLC
Case Name: Manning v. Lendio, Inc.
Services Provided: Testifying expert for plaintiff

Disposition: Ongoing Date: 2014

Expert Engagement:

Type of Matter: Telephone Consumer Protection Act (TCPA), 47 U.S.C. § 227 class action

related to short message service (SMS) technology

Law Firm: The Law Offices of Joseph R. Manning, Jr.

Case Name: Vargem v. Tax Defense Partners, LLC

Services Provided: Testifying expert for plaintiff

Disposition: Ongoing Date: 2014

Expert Engagement:

Type of Matter: Telephone Consumer Protection Act (TCPA), 47 U.S.C. § 227 class action

related to unlawful cellular telephone calls

Law Firm: Steptoe & Johnson PLLC

Case Name: Cain v. Monitronics, International, Inc.

Services Provided: Consulting expert for defendant

Disposition: Dismissed Date: 2014

Expert Engagement:

Type of Matter: Telephone Consumer Protection Act (TCPA), 47 U.S.C. § 227 class action

related to short message service (SMS) technology and unlawful cellular

telephone calls

Law Firm: Mantese Honigman Rossman and Williamson, P.C.

Case Name: Glassbrook v. Rose Acceptance, Inc. and First National Bank of America

Services Provided: Testifying expert, expert reports, depositions for plaintiff

Disposition: Ongoing Date: 2014

Expert Engagement:

Type of Matter: Telephone Consumer Protection Act (TCPA), 47 U.S.C. § 227 class action

related to unlawful cellular telephone calls

Law Firm: Kazerouni Law Group, APC
Case Name: Iniguez v. The CBE Group, Inc.

Services Provided: Testifying expert, expert reports for plaintiff

Disposition: Settled Date: 2014

Expert Engagement:

Type of Matter: Telephone Consumer Protection Act (TCPA), 47 U.S.C. § 227 class action

related to unlawful cellular telephone calls

Law Firm: Keogh, Cox & Wilson, Ltd.

Case Name: Hetherington v. Omaha Steaks, Inc. and Omaha Steaks International, Inc.

Services Provided: Testifying expert, expert reports for plaintiff

Disposition: Settled Date: 2014

Expert Engagement:

Type of Matter: Telephone Consumer Protection Act (TCPA), 47 U.S.C. § 227 class action

related to unlawful cellular telephone calls

Law Firm: Potter Handy, LLP

Case Name: Potter v. Bank of America Corporation

Services Provided: Testifying expert, expert reports for plaintiff

Disposition: Settled Date: 2014

Expert Engagement:

Type of Matter: Telephone Consumer Protection Act (TCPA), 47 U.S.C. § 227 class action

related to short message service (SMS) technology

Law Firm: Lemberg & Associates LLC

Case Name: Shiyan v. Lucille Roberts Health Clubs, Inc. Services Provided: Testifying expert, expert reports for plaintiff

Disposition: Withdrawn Date: 2014

Expert Engagement:

Type of Matter: Telephone Consumer Protection Act (TCPA), 47 U.S.C. § 227 class action

related to unlawful cellular telephone calls

Law Firm: Lemberg & Associates LLC

Case Name: Meyer v. Receivables Performance Management LLC

Services Provided: Testifying expert for plaintiff

Disposition: Settled Date: 2014

Expert Engagement:

Type of Matter: Telephone Consumer Protection Act (TCPA), 47 U.S.C. § 227 class action

related to unlawful cellular telephone calls

Law Firm: McGuire Law, P.C.

Case Name: Murray v. Bill Me Later, Inc. Services Provided: Consulting expert for plaintiff

Disposition: Settled Date: 2014

Expert Engagement:

Type of Matter: Telephone Consumer Protection Act (TCPA), 47 U.S.C. § 227 class action

related to unlawful cellular telephone calls

Law Firm: Lemberg & Associates LLC Case Name: Creel v. GC Services, L.P.

Services Provided: Testifying expert, expert reports, depositions for plaintiff

Disposition: Settled Date: 2014

Expert Engagement:

Type of Matter: Intellectual property (patents) related to short message service (SMS) technology

and communication protocols

Law Firm: White & Case LLP

Case Name: Nokia Corporation v. Google Inc. Services Provided: Testifying expert for defendant

Disposition: Settled

Date: 2014

Expert Engagement:

Type of Matter: Telephone Consumer Protection Act (TCPA), 47 U.S.C. § 227 class action

related to short message service (SMS) technology

Law Firm: McGuire Law, P.C.

Case Name: Gomez v. Campbell-Ewald Company

Services Provided: Consulting expert for plaintiff

Disposition: Ongoing Date: 2014

Expert Engagement:

Type of Matter: Telephone Consumer Protection Act (TCPA), 47 U.S.C. § 227 class action

related to short message service (SMS) technology

Law Firm: Francis & Mailman, P.C. Case Name: Dominguez v. Yahoo! Inc.

Services Provided: Testifying expert, expert reports, depositions for plaintiff

Disposition: Ongoing Date: 2013–2016

Expert Engagement:

Type of Matter: Telephone Consumer Protection Act (TCPA), 47 U.S.C. § 227 class action

related to short message service (SMS) technology

Law Firm: McGuire Law, P.C.

Case Name: Smith v. Microsoft Corporation

Services Provided: Testifying expert, expert reports for plaintiff

Disposition: Ongoing Date: 2013–2016

Expert Engagement:

Type of Matter: Telephone Consumer Protection Act (TCPA), 47 U.S.C. § 227 class action

related to unlawful cellular telephone calls

Law Firm: Lemberg & Associates LLC

Case Name: Horton v. Cavalry Portfolio Services LLC

Services Provided: Testifying expert, expert reports, depositions for plaintiff

Disposition: Ongoing Date: 2013–2014

Expert Engagement:

Type of Matter: Telephone Consumer Protection Act (TCPA), 47 U.S.C. § 227 class action

related to short message service (SMS) technology

Law Firm: Law Office of Scott D. Owens, Esq. and Farmer, Jaffee, Weissing, Edwards,

Fistos & Lehrman, P.L.

Case Name: Legg v. Voice Media Group, Inc.

Services Provided: Testifying expert, expert reports for plaintiff

Disposition: Dismissed
Date: 2013–2014

Expert Engagement:

Type of Matter: Telephone Consumer Protection Act (TCPA), 47 U.S.C. § 227 class action

related to short message service (SMS) technology

Law Firm: Edelson LLC
Case Name: Sterk v. Path, Inc.

Services Provided: Testifying expert, expert reports for plaintiff

Disposition: Settled Date: 2013–2014

Expert Engagement:

Type of Matter: Telephone Consumer Protection Act (TCPA), 47 U.S.C. § 227 class action

related to short message service (SMS) technology

Law Firm: Wooten, Kimbrough & Normand, PA Case Name: Murphy v. DCI Biologicals, LLC

Services Provided: Testifying expert, expert reports for plaintiff

Disposition: Settled
Date: 2013–2014

Expert Engagement:

Type of Matter: Telephone Consumer Protection Act (TCPA), 47 U.S.C. § 227 class action

related to short message service (SMS) technology

Law Firm: Kazerouni Law Group, APC Case Name: Sherman v. Yahoo! Inc.

Services Provided: Testifying expert, expert reports for plaintiff

Disposition: Dismissed Date: 2013–2014

Expert Engagement:

Type of Matter: Telephone Consumer Protection Act (TCPA), 47 U.S.C. § 227 and Fair Debt

Collection Practices Act (FDCPA) 15 U.S.C. 15 § 1692 related to unlawful

cellular telephone calls

Law Firm: Collins & Story, PA

Case Name: Keen v. Delta Outsource Group, Inc.

Services Provided: Testifying expert, expert reports, depositions for plaintiff

Disposition: Settled
Date: 2013–2014

Expert Engagement:

Type of Matter: Intellectual property (patents) related to short message service (SMS) technology

and mobile banking

Law Firm: Panovia Group LLP

Case Name: N5 Technologies, LLC v. Capital One, N.A. et al

Services Provided: Testifying expert, expert reports, depositions for plaintiff

Disposition: Settled
Date: 2013–2014

Expert Engagement:

Type of Matter: Telephone Consumer Protection Act (TCPA), 47 U.S.C. § 227 and California's

Unfair Competition Law, Cal. Bus. & Prof. Code § 17200 class action related to

short message service (SMS) technology

Law Firm: Hartmann and Kananen Case Name: Baird v. Sabre, Inc.

Services Provided: Testifying expert, expert reports for plaintiff

Disposition: Dismissed Date: 2013–2014

Expert Engagement:

Type of Matter: Telephone Consumer Protection Act (TCPA), 47 U.S.C. § 227 class action

related to short message service (SMS) technology and unlawful charging of

cellular telephone customers

Law Firm: Edelson LLC

Case Name: Lee v. Stonebridge Life Insurance Company

Services Provided: Testifying expert, expert reports, depositions for plaintiff

Disposition: Settled
Date: 2012–2014

Expert Engagement:

Type of Matter: Intellectual property (patents) related to short message service (SMS) technology

and multimedia message service (MMS) technology

Law Firm: Baker Botts LLP

Case Name: Intellectual Ventures LLC v. AT&T Mobility LLC, T-Mobile USA, Inc., Sprint

Spectrum L.P., US Cellular Corporation

Services Provided: Testifying expert, expert reports for defendants

Disposition: Patent withdrawn from litigation

Date: 2012–2014

Expert Engagement:

Type of Matter: Telephone Consumer Protection Act (TCPA), 47 U.S.C. § 227 class action

related to short message service (SMS) technology

Law Firm: Keogh Law, Ltd.

Case Name: Wanca v. LA Fitness International, LLC

Services Provided: Testifying expert, expert reports, depositions for plaintiff

Disposition: Settled Date: 2013

Expert Engagement:

Type of Matter: Telephone Consumer Protection Act (TCPA), 47 U.S.C. § 227 class action

related to unlawful cellular telephone calls

Law Firm: Lemberg & Associates LLC
Case Name: Penn v. NRA Group, LLC
Services Provided: Consulting expert for plaintiff

Disposition: Ongoing Date: 2013

Expert Engagement:

Type of Matter: Telephone Consumer Protection Act (TCPA), 47 U.S.C. § 227 class action

related to unlawful cellular telephone calls

Law Firm: Lemberg & Associates LLC
Case Name: Reed v. GC Services LP
Services Provided: Consulting expert for plaintiff

Disposition: Settled Date: 2013

Expert Engagement:

Type of Matter: Telephone Consumer Protection Act (TCPA), 47 U.S.C. § 227 class action

related to short message service (SMS) technology

Law Firm: The Lavery Law Firm

Case Name: Volpe v. Caribbean Cruise Line, Inc. Services Provided: Consulting expert for plaintiff

Disposition: Dismissed Date: 2013

Expert Engagement:

Type of Matter: Washington Consumer Protection Act, RCW 19.86 and RCW 80.36.400 related

to unfair business practices and unlawful cellular telephone calls

Law Firm: Williamson and Williams Law

Case Name: Kids Northwest v. First Data Corporation

Services Provided: Consulting expert for plaintiff

Disposition: Ongoing Date: 2013

Expert Engagement:

Type of Matter: Telephone Consumer Protection Act (TCPA), 47 U.S.C. § 227 class action

related to short message service (SMS) technology

Law Firm: George Rikos Law

Case Name: Van Patten v. Vertical Fitness

Services Provided: Testifying expert, expert reports for plaintiff

Disposition: Dismissed Date: 2013–2016

Expert Engagement:

Type of Matter: Telephone Consumer Protection Act (TCPA), 47 U.S.C. § 227 and California

Business and Professions Code § 17200 class action related to short message

service (SMS) technology

Law Firm: Milberg LLP

Case Name: D'Agostino v. Jesta Digital, LLC (dba Jamster)
Services Provided: Testifying expert, expert reports for plaintiff

Disposition: Settled Date: 2013

Expert Engagement:

Type of Matter: Telephone Consumer Protection Act (TCPA), 47 U.S.C. § 227 and Restrictions

on Telemarketing, Telephone Solicitation, and Facsimile Advertising 47 C.F.R.

§ 64.1200(d)(3) class action related to unlawful cellular telephone calls

Law Firm: Burke Law Offices, LLC Case Name: Benzion v. Vivint, Inc.

Services Provided: Testifying expert, expert reports, depositions for plaintiff

Disposition: Settled Date: 2013

Expert Engagement:

Type of Matter: Telephone Consumer Protection Act (TCPA), 47 U.S.C. § 227 class action

related to unlawful cellular telephone calls

Law Firm: Lemberg & Associates LLC

Case Name: Rutigliano v. Convergent Outsourcing, Inc. Services Provided: Testifying expert, expert reports for plaintiff

Disposition: Ongoing Date: 2013

Expert Engagement:

Type of Matter: Telephone Consumer Protection Act (TCPA), 47 U.S.C. § 227 class action

related to short message service (SMS) technology

Law Firm: Kazerouni Law Group, APC

Case Name: Emanuel v. The Los Angeles Lakers, Inc.
Services Provided: Testifying expert, expert reports for plaintiff

Disposition: Dismissed Date: 2013

Expert Engagement:

Type of Matter: Telephone Consumer Protection Act (TCPA), 47 U.S.C. § 227 class action

related to short message service (SMS) technology

Law Firm: Kazerouni Law Group, APC
Case Name: Barani v. Wells Fargo Bank, N.A.
Services Provided: Consulting expert for plaintiff

Disposition: Settled Date: 2013

Expert Engagement:

Type of Matter: Intellectual property (patents) related to wireless calling party identification

technology

Law Firm: K&L Gates LLP

Case Name: Cequint Inc. v. Apple Inc.
Services Provided: Consulting expert for plaintiff

Disposition: Settled Date: 2013

Expert Engagement:

Type of Matter: Telephone Consumer Protection Act (TCPA), 47 U.S.C. § 227 class action

related to unlawful cellular telephone calls

Law Firm: Donald A. Yarbrough, Esq.

Case Name: Mais v. Gulf Coast Collection Bureau, Inc.
Services Provided: Testifying expert, expert reports for plaintiff

Disposition: Dismissed on appeal

Date: 2013

Expert Engagement:

Type of Matter: Telephone Consumer Protection Act (TCPA), 47 U.S.C. § 227 class action

related to unlawful cellular telephone calls

Law Firm: Donald A. Yarbrough, Esq.

Case Name: Manno v. Healthcare Revenue Recovery Group, LLC Services Provided: Testifying expert, expert reports, depositions for plaintiff

Disposition: Settled Date: 2013

Expert Engagement:

Type of Matter: Telephone Consumer Protection Act (TCPA), 47 U.S.C. § 227 class action

related to short message service (SMS) technology and unlawful charging of

cellular telephone customers

Law Firm: Law Office of Scott D. Owens, Esq.

Case Name: Wojcik v. Buffalo Bills, Inc.

Services Provided: Testifying expert, expert reports for plaintiff

Disposition: Settled
Date: 2012–2013

Expert Engagement:

Type of Matter: Telephone Consumer Protection Act (TCPA), 47 U.S.C. § 227 class action

related to short message service (SMS) technology and unlawful charging of

cellular telephone customers

Law Firm: Law Office of Scott D. Owens, Esq.

Case Name: Keim v. ADF Midatlantic, LLC (Pizza Hut)

Services Provided: Testifying expert for plaintiff

Disposition: Ongoing Date: 2012–2013

Expert Engagement:

Type of Matter: Telephone Consumer Protection Act (TCPA), 47 U.S.C. § 227 class action

related to unlawful cellular telephone calls

Law Firm: Liner Grode Stein Yankelevitz Sunshine Regenstreif & Taylor LLP

Case Name: Connelly v. Hilton Grand Vacations Company, LLC

Services Provided: Testifying expert, expert reports, depositions for defendant

Disposition: Dismissed Date: 2012–2013

Expert Engagement:

Type of Matter: Telephone Consumer Protection Act (TCPA), 47 U.S.C. § 227 class action

related to short message service (SMS) technology

Law Firm: Kirby Law Group

Case Name: Agne v. Papa John's International, Inc. et al

Services Provided: Consulting expert for plaintiff

Disposition: Settled Date: 2012

Expert Engagement:

Type of Matter: Telephone Consumer Protection Act (TCPA), 47 U.S.C. § 227 class action and

NY GBL 399-P class action related to unlawful calls

Law Firm: Bellin and Associates LLC

Case Name: Tipoo v. Enhanced Recovery Company, LLC

Services Provided: Testifying expert for plaintiff

Disposition: Undisclosed

Date: 2012

Expert Engagement:

Type of Matter: Telephone Consumer Protection Act (TCPA), 47 U.S.C. § 227 class action

related to unlawful calls

Law Firm: Burke Law Offices, LLC

Case Name: Bailey v. Household Finance Corporation et al Services Provided: Testifying expert, expert reports for plaintiff

Disposition: Undisclosed Date: 2011–2012

Expert Engagement:

Type of Matter: Telephone Consumer Protection Act (TCPA), 47 U.S.C. § 227 class action

related to short message service (SMS) technology

Law Firm: Burke Law Offices, LLC
Case Name: Annoni v. FYISMS.com, LLC

Services Provided: Testifying expert, expert reports for plaintiff

Disposition: Undisclosed Date: 2011–2012

Expert Engagement:

Type of Matter: Telephone Consumer Protection Act (TCPA), 47 U.S.C. § 227 class action

related to short message service (SMS) technology and unlawful charging of

cellular telephone customers

Law Firm: KamberEdelson, LLC

Case Name: Schrock v. Wenner Media LLC Services Provided: Consulting expert for plaintiff

Disposition: Undisclosed

Date: 2011

Expert Engagement:

Type of Matter: Telephone Consumer Protection Act (TCPA), 47 U.S.C. § 227 class action

related to short message service (SMS) technology and unlawful charging of

cellular telephone customers

Law Firm: Summit Law Group

Case Name: Kramer v. Autobytel, Inc. and B2Mobile, LLC

Services Provided: Consulting expert for defendant

Disposition: Settled Date: 2011

Expert Engagement:

Type of Matter: Intellectual property (patents) related to wireless location based services (LBS)

Law Firm: Mintz, Levin, Cohn, Ferris, Glovsky and Popeo PC

Case Name: Emsat Geolocation Technology, LLC v. CellCo Limited Partnership (dba

Verizon Wireless) et al

Services Provided: Testifying expert, USPTO affidavits for patent reexamination for plaintiff

Disposition: Undisclosed Date: 2010–2011

Expert Engagement:

Type of Matter: Telephone Consumer Protection Act (TCPA), 47 U.S.C. § 227 class action

related to unlawful calls

Law Firm: Keogh Law, Ltd.

Case Name: Griffith v. Consumer Portfolio Services, Inc. Services Provided: Testifying expert, expert reports for plaintiff

Disposition: Undisclosed Date: 2010–2011

Expert Engagement:

Type of Matter: Telephone Consumer Protection Act (TCPA), 47 U.S.C. § 227 class action

related to unlawful calls

Law Firm: Keogh Law, Ltd.

Case Name: Dobbin v. Wells Fargo Auto Finance, Inc.
Services Provided: Testifying expert, expert reports for plaintiff

Disposition: Dismissed Date: 2010–2011

Expert Engagement:

Type of Matter: Intellectual property (patents) related to short message service (SMS) technology

Law Firm: Nelson Bumgardner Casto PC
Case Name: Celltrace LLC v. AT&T Inc. et al
Services Provided: Consulting expert for plaintiff

Disposition: Undisclosed

Date: 2010

Expert Engagement:

Type of Matter: California Constitution, Article VI, § 10, class action related to short message

service (SMS) technology and unlawful charging of cellular telephone customers

Law Firm: KamberEdelson, LLC

Case Name: VanDyke v. Media Breakaway, LLC

Services Provided: Testifying expert, expert reports for plaintiff

Disposition: Settled Date: 2009

Expert Engagement:

Type of Matter: Telephone Consumer Protection Act (TCPA), 47 U.S.C. § 227 class action

related to unlawful calls

Law Firm: Gordon & Rees LLP

Case Name: Allen v. Rickenbacker Collection Services

Services Provided: Consulting expert for defendant

Disposition: Undisclosed

Date: 2009

Expert Engagement:

Type of Matter: Intellectual property (trademarks) related to short message service (SMS)

technology

Law Firm: Fish & Richardson P.C.

Case Name: Cricket Communications, Inc. v. HipCricket, Inc.

Services Provided: Testifying expert, expert reports, depositions for plaintiff

Disposition: Undisclosed Date: 2008–2009

Expert Engagement:

Type of Matter: California Constitution, Article VI, § 10, class action related to short message

service (SMS) technology and unlawful charging of cellular telephone customers

Law Firm: KamberEdelson, LLC
Case Name: Albrecht v. mBlox, Inc. et al

Services Provided: Testifying expert, expert reports for plaintiff

Disposition: Settled Date: 2008–2009

Expert Engagement:

Type of Matter: Telephone Consumer Protection Act (TCPA), 47 U.S.C. § 227 class action

related to short message service (SMS) technology

Law Firm: Blim & Edelson, LLC

Case Name: Satterfield v. Simon & Schuster, Inc.

Services Provided: Testifying expert, expert reports for plaintiff

Disposition: Settled Date: 2007–2009

Expert Engagement:

Type of Matter: Class action related to short message service (SMS) technology and unlawful

charging of cellular telephone customers

Law Firm: KamberEdelson, LLC
Case Name: Walker v. Motricity, Inc.

Services Provided: Testifying expert, expert reports, depositions for plaintiff

Disposition: Settled Date: 2008

Expert Engagement:

Type of Matter: Class action related to short message service (SMS) technology and unlawful

charging of cellular telephone customers

Law Firm: KamberEdelson, LLC
Case Name: Rynearson v. Motricity, Inc.

Services Provided: Testifying expert, expert reports, depositions for plaintiff

Disposition: Settled Date: 2008

Expert Engagement:

Type of Matter: California Constitution, Article VI, § 10, class action related to short message

service (SMS) technology and unlawful charging of cellular telephone customers

Law Firm: KamberEdelson, LLC

Case Name: Reed v. Sprint Nextel Corporation

Services Provided: Testifying expert, expert reports for plaintiff

Disposition: Settled Date: 2008

Expert Engagement:

Type of Matter: Class action related to short message service (SMS) technology and unlawful

charging of cellular telephone customers

Law Firm: KamberEdelson, LLC

Case Name: Paluzzi v. CellCo Limited Partnership (dba Verizon Wireless) and mBlox. Inc.

Services Provided: Consulting expert for plaintiff

Disposition: Settled Date: 2008

Expert Engagement:

Type of Matter: Class action related to short message service (SMS) technology and unlawful

charging of cellular telephone customers

Law Firm: KamberEdelson, LLC

Case Name: Nava v. Predicto Mobile, LLC Services Provided: Consulting expert for plaintiff

Disposition: Settled Date: 2008

Expert Engagement:

Type of Matter: Class action related to short message service (SMS) technology and unlawful

charging of cellular telephone customers

Law Firm: KamberEdelson, LLC

Case Name: McFerren v. AT&T Mobility, LLC Services Provided: Consulting expert for plaintiff

Disposition: Settled Date: 2008

Expert Engagement:

Type of Matter: California's Unfair Competition Law, Cal. Bus. & Prof. Code § 17200 class

action related to short message service (SMS) technology and unlawful charging

of cellular telephone customers

Law Firm: KamberEdelson, LLC

Case Name: Guerrero v. MobileFunster, Inc. Services Provided: Consulting expert for plaintiff

Disposition: Settled Date: 2008

Expert Engagement:

Type of Matter: Computer Fraud and Abuse Act, 18 U.S.C. Article § 1030, class action related to

short message service (SMS) technology and unlawful charging of cellular

telephone customers

Law Firm: KamberEdelson, LLC

Case Name: Gray v. Mobile Messenger Americas, Inc.

Services Provided: Consulting expert for plaintiff

Disposition: Settled Date: 2008

Expert Engagement:

Type of Matter: Class action related to short message service (SMS) technology and unlawful

charging of cellular telephone customers

Law Firm: KamberEdelson, LLC
Case Name: Goddard v. Google, Inc.
Services Provided: Consulting expert for plaintiff

Disposition: Settled Date: 2008

Expert Engagement:

Type of Matter: Class action related to short message service (SMS) technology and unlawful

charging of cellular telephone customers

Law Firm: KamberEdelson, LLC

Case Name: Duffy v. Nevis Mobile, LLC Services Provided: Consulting expert for plaintiff

Disposition: Settled Date: 2008

Expert Engagement:

Type of Matter: Class action related to short message service (SMS) technology and unlawful

charging of cellular telephone customers

Law Firm: KamberEdelson, LLC
Case Name: Criswell v. MySpace, Inc.

Services Provided: Testifying expert, expert reports for plaintiff

Disposition: Undisclosed

Date: 2008

Expert Engagement:

Type of Matter: Class Action Fairness Act of 2005, 28 U.S.C. §§ 1332, 1453 and 28 U.S.C. §

1367(a) class action related to short message service (SMS) technology and

unlawful charging of cellular telephone customers

Law Firm: KamberEdelson, LLC
Case Name: Bradberry v. mBlox, Inc.
Services Provided: Consulting expert for plaintiff

Disposition: Settled Date: 2008

Expert Engagement:

Type of Matter: California Constitution, Article VI, § 10, class action related to short message

service (SMS) technology and unlawful charging of cellular telephone customers

Law Firm: KamberEdelson, LLC

Case Name: Ayers v. Media Breakaway, LLC

Services Provided: Testifying expert, expert reports for plaintiff

Disposition: Settled Date: 2008

Expert Engagement:

Type of Matter: Intellectual property (patents) related to wireless location based services (LBS)

Law Firm: Hahn Loeser & Parks, LLC

Case Name: Emsat Geolocation Technology, LLC v. CellCo Limited Partnership (dba

Verizon Wireless) et al

Services Provided: Consulting expert for plaintiff

Disposition: Undisclosed

Date: 2008

Expert Engagement:

Type of Matter: Class action related to short message service (SMS) technology and unlawful

charging of cellular telephone customers

Law Firm: Blim & Edelson, LLC

Case Name: Valdez v. Sprint Nextel Corporation Services Provided: Consulting expert for plaintiff

Disposition: Settled Date: 2007

Expert Engagement:

Type of Matter: Telephone Consumer Protection Act (TCPA), 47 U.S.C. § 201 class action

related to short message service (SMS) technology and unlawful charging of

cellular telephone customers

Law Firm: Blim & Edelson, LLC

Case Name: Bradberry v. T-Mobile USA, Inc.

Services Provided: Testifying expert, expert reports for plaintiff

Disposition: Settled Date: 2007

Expert Engagement:

Type of Matter: California Computer Crime Law, Cal. Pen. Code § 502 and California's Unfair

Competition Law, Cal. Bus. & Prof. Code § 17200 class action related to short

message service (SMS) technology

Law Firm: KamberEdelson, LLC
Case Name: Abrams v. Facebook, Inc.

Services Provided: Testifying expert, expert reports for plaintiff

Disposition: Settled Date: 2007

Expert Engagement:

Type of Matter: Intellectual property (patents) related to short message service (SMS) technology

Law Firm: Paul Hastings LLP

Case Name: TeleCommunication Systems, Inc. v. Mobile365, Inc.

Services Provided: Testifying expert, expert reports, depositions, trial testimony for defendant

Disposition: Settled Date: 2007



Wireless Research Services, LLC 2017 Rate Sheet

ITEM	FEE
Non-refundable Retainer at Time of Engagement	\$4,000
Expert Witness Consulting, Expert Reports	\$475 per hour
Depositions, In-court Testimony	\$500 per hour
Required Travel, Lodging, Board and Administrative Expenses	\$1,000 per airline travel day plus actual incurred expenses
Invoicing	Payment due upon receipt
Penalty for Late Payments	10% of total invoice added after each 30 days late until full payment is received

By signing below and returning an executed copy to Wireless Research Services, LLC along with payment of the non-refundable retainer, you agree to the payment terms contained on this rate sheet.

Agreed to by: Chris R. Miltenberger
Law firm/Company:Law Office of Chris R. Miltenberger, PLLC
Case Name: Mahoney v. TT of Pine Ridge, Inc., 9:17-cv-80029-DMM, SD FL
Date:April 3, 2017

EXHIBIT B



Full-featured Application Programming Interface



Get started with our amazing APIs!

Stratics Networks' full-featured set of APIs allow for seamless integration with your existing or new projects. Whether you are building a mobile app to allow your customers to contact clients, integrating our predictive dialer into an election volunteer website, adding our voice services to your existing product or simply supplementing your existing capacity with our enterprise class voice service's backend, our APIs enable you to get up and running quickly.

Use Stratics Networks' APIs with Ringless Voicemail Drops,
Outbound IVR, PrecisePoll, Voice Broadcasting, Live Transfer or our
world class Predictive Cloud Dialer.



API Feature List – Ringless Voicemail Drops

- Create RVM Campaign
- ✓ Update RVM Campaign
- ✓ Delete RVM Campaign
- Retrieve RVM Campaign
- Select All RVM Campaigns by Account
- Assign Phone List
- Un-assign Phone List(s)



EXHIBIT C

Main Discover

Pricing Contact

Platform Login

Add Funds

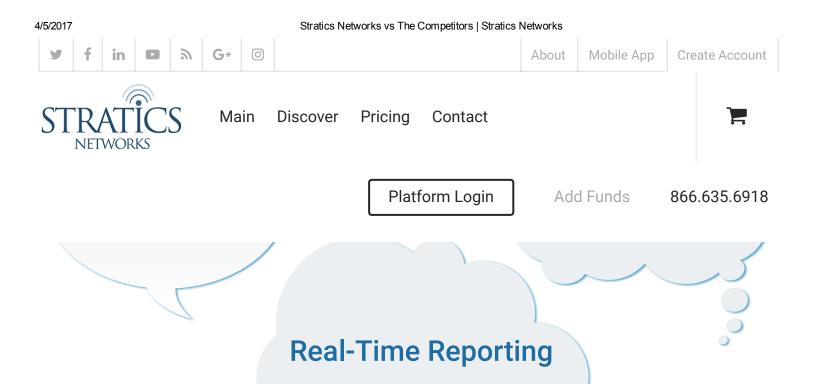
866.635.6918

Features Showdown

With an All-in-one Platform Loaded with features (New Ones Always in Development), See What Makes Stratics Networks your ONLY Choice!

Platform Features

Start a Live Call Now!



Time Zone Protection

Massive Capacity

Stratics Networks' vs The Competitors

Start a Live Call Now!

Platform Features

Platform Login

866.635.6918

About

Mobile App

Add Funds





Pricing Contact Main Discover



Tidtioni	Additalias	000.000
Landline/Mobile Separator – Scrub Landlines, Duplicates & Malformed Data	YES	LIMITED
Live Support – 7 Days a Week from 9am ET – 7	11pm YES	NO
Legal Endorsements – Endorsed by 20 Top Tel Attorneys	com YES	NO
Full White Label – Your Own Logos & URL and	Logins YES	NO
RVM On-Demand – Send Targeted Single Drops	s YES	LIMITED
Massive Capacity – Send Out 10,000 RVMs Pe Minute	r YES	NO
API - Full REST API	YES	LIMITED
All-In-One Platform – Ringless Voicemail, IVR, I Live Transfers, Voice Broadcast	Polling, YES	NO
Mobile App – iOS & Android App	YES	NO
List Uploading – Upload Unlimited Lists and Lis	st Sizes YES	NO
Proprietary Delivery – 4 RVM Delivery Methods	YES	NO
True Ringless – ZERO Rings or Line Taps on Ad Delivery	dvanced YES	NO
Full Management – Detailed Management of A Campaign Aspects	VES	NO
Recordings – Successful RVMS are Recorded to Listen To	for You YES Start a Live C	NO all Nowl
Inbound IVR – Filter the Best Inbound Leads	Start a Live C	all NOW!

Platform Features



Main Discover Pricing Contact



	Platform Login	Add Funds	866.635.6918
Suite		IEO	NO
Legal Questions – Access to Top Tele Attorneys for Legal Options	com FCC	YES	NO
Expiry Policy - Drops Never Expire		YES	NO
RVM Auto Stop – Automatically Stop Desired Targets	s Campaign at	YES	NO
No Campaign Limits – Run Multiple C Once	Campaigns at	YES	NO
Time Zone Compliance Tool – Maps Auto Stops at 9pm	Area Codes and	YES	NO
Detailed Field Mapping – Names, Add	dresses, etc.	YES	NO
Transparent Billing – Only Pay for Suc (each drop is recorded)	ccessful Drops	YES	Platform NO

Create a Stratics Networks Platform Account Now!

Start a Live Call Now!

Main Discover Pricing Contact

Platform Login

Add Funds

866.635.6918

Platform Features

DISCOVER

Products

Ringless Voicemail DropsTM

PrecisePollTM - Advanced IVR

Hosted Voice Broadcasting

Hosted Outbound IVR

Hosted Call Center Software

Dialer Termination

CNAM Revenue Sharing

Start a Live Call Now!

EXHIBIT D



Ringless Voicemail Drops™ Compliance



100 Washington St NE Huntsville, AL 35801



Info@StraticsNetworks.com







Ringless Voicemail Drops

Mobile Device Facts

There are 318 million people in the US and 328 million registered mobile phone numbers making America one of the highest number of cell phone users in the world.

90% of adults have a cell phone and 67% of cell owners find themselves checking their phone for messages, alerts or calls - even when they don't notice their phone ringing or vibrating!

The increase in the use of cell phones amongst Americans has resulted in the decrease of traditional communication methods, which has created a dilemma for many organizations. It has become more difficult to connect with people to gather and share information.

This poses a significant challenge to industries that need to connect to individuals, such as research departments, financial institutions, governments, schools, health care organizations, insurance agencies, just to name a few.

Catch 22

The current laws regulate who can call us directly on our cell phones, which is great. After all, who wants to hear their cell phone constantly ringing and being subject to expensive charges every time we answer!

Here's the Catch 22, if people are overwhelmingly using their cell phone to communicate and key industries are restricted from contacting cell phones, then how are consumers going to receive key information?

This is where cutting edge technology designed and pioneered by Stratics Networks is beginning to take shape and is revolutionizing how organizations reach their targeted audience.

Introducing Ringless Voicemail Drops, also known as Direct Voicemail Messaging. Imagine the ability to drop a voicemail message directly into a subscriber's voice mailbox without ever making a call or ringing their phone line

The subscriber is never bothered or charged for a call.

Ringless Voicemail Drops are 100% legal and have been specifically designed to be a non-intrusive form of communication. This voicemail service has also been developed to be compliant with all federal laws and regulations.

Our Technology

Our proprietary M7.7RVM software creates a landline to landline session directly to the telephone company's voicemail server. There is never contact between the message provider and the subscriber. It is essentially computer to computer communication.

Our voicemail messaging allows an organization to legally contact an individual by dropping a voicemail directly into an individual's voicemail inbox, without making a call or ringing the person's phone line.

How Are Ringless Voicemail Drops Legal?

Direct Voicemail Messaging is legal based on a few major points:

- I) The FCC has defined voicemail and voicemail services as Enhanced Information Services and has chosen not to regulate these enhanced services (The Telecommunications Act of 1996).
- **2)** Our Direct Voicemail Messaging service creates a direct session to the telephone company's voicemail server.
- **3)** We never directly call the recipient. Therefore, there is no direct contact and the subscriber is never charged for the call.

Telecommunication Legislation and Regulations

Cell phones are protected through federal and state telecommunications laws and regulations. For example, the TCPA, the National Do Not Call Registry, state-by-state robocall laws and a host of other regulations from the FTC and the FCC.



Ringless Voicemail Drops

Fair Debt Collection Practices Act

(2013)

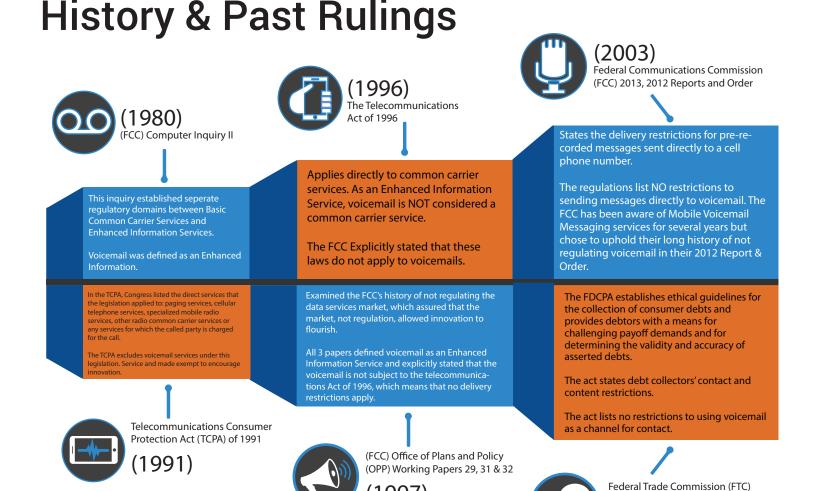
However, voicemail and voicemail services have been purposely excluded from these laws and regulations and have been left exempt from FTC and FCC laws and regulations.

Voicemail Defined: Enhanced Information Services

In 1980, the FCC formed the Computer Inquiry II (CEII), which formed rules and regulations for the computer communications industry. CEII purposely defined the difference between Basic Information Services and Enhanced Information Services.

Basic services from common carriers are direct transmissions over traditional telco paths, such as direct phone calls. Enhanced Information Services use advanced and/or enhanced computer applications to transmit information. The definition for Enhanced Information Services later included transmissions such as email, Voice over Internet Protocol (VoIP), voicemail and voicemail services.

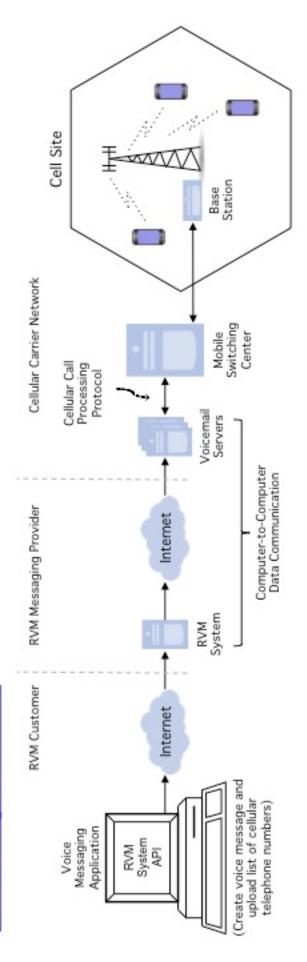
This classification is very important since subsequent telecommunications laws and regulations applied to basic services, while exempting or excluded mentioning (or excluding mention) of Enhanced Information Services.



(1997)

EXHIBIT E

RVM Voice Message Call to Subscriber



Text Message Call to Subscriber

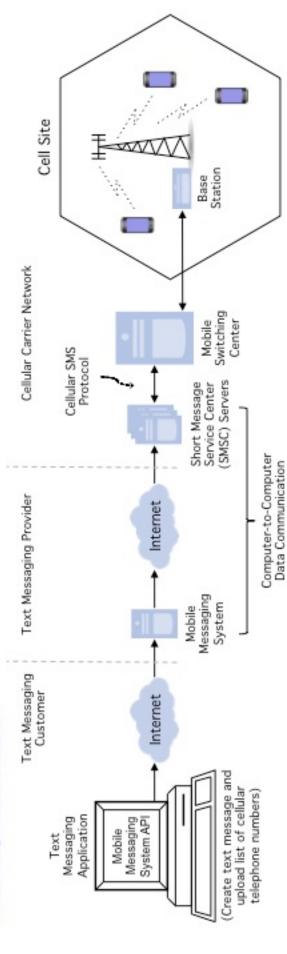


EXHIBIT F

Wireless Residential Business

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verizon √ Shop	Support My Verizon	I am looking for
Sign in User ID or mobile number	> Remember me	Forgot <u>user ID</u> or <u>password Register</u>

Voicemail

Voicemail is a service that lets callers leave a voice message for you if you aren't available to answer your mobile phone. There are both free and paid Voicemail options to choose from.

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Voicemail Service to be updated

Voicemail service updates

Voicemail Comparison

	Basic Voicemail (Included)	iPhone® Visual Voicemail (Included)	Voicemail to Text for iPhone (\$2.99)	Basic Visual Voicemail (Included)	Premium Visual Voicemail (\$2.99)
Storage Capacity	20 messages	40 messages	40 messages	20 messages	40 messages
Message Duration	3 minutes	3 minutes	3 minutes	3 minutes	5 minutes
Voicemail to Text ^{1, 3}			Yes ⁴		Yes
Manage Standard Greetings	*86 only	App and *86	App and *86	App and *86	App and *86
Caller Dependent Greetings ²					20
Caller Dependent					50
Greeting				Back to top	

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Basic Visual Voicemail

Basic

Premium Visua	l Voicemail Vo	oicemail for iPho	ne		
Text Message and Email					
Forward by Text Message and Email					Yes
Save Voicemails to Device ⁵				Yes	Yes
Contact List Integration		Yes	Yes	Yes	Yes
Fax Support					Yes
Distribution Lists	15			15	20
Distribution Members	10			10	50
Personal Operator					Yes
Mobile Application		Yes	Yes	Yes	Yes
Reply by Facetime®		Yes	Yes		
Compatible Operating Systems	Basic phones, Android™ smartphones, BlackBerry, Windows Phones	iOS only	iOS only	Android, BlackBerry, Windows Phone	Android, BlackBerry Windows Phone
Voicemail Platform	AnyPath & Comverse IMS	iPhone IMS	IMS	IMS	IMS

-- Not Available

- 1. Voicemail to Text: Discreetly read voicemails without listening to them
- 2. Caller Dependent Greetings: Create personal greetings for a caller or a group of callers
- 3. Only the first 45 seconds of each voice message will be transcribed
- 4. Transcribed voicemails will be sent as an SMS
- 5. Windows Phones that support Visual Voicemail (\$2.99), do not support saving voicemails to the device.

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Basic Visual Voicemail Premium Visual Voicemail Voicemail for iPhone



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Attend a Workshop
Attend a free workshop in a store
to get detailed and personal
assistance from a Verizon expert.

Schedule a Workshop

Visit a Store

Store Locator

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Wireless Workshops	ASUS	Windows	Military & Veterans Discounts
Register Signal Booster	BlackBerry	iPhone 7 (PRODUCT)RED Special Edition	International Student Program
Report A Security Vulnerability	Droid	iPhone 7 Plus (PRODUCT)RED Special Edition	Employee Discounts
Device Trade-In Program	Google	Pixel	Certified Pre-Owned
Order Status	HTC	Pixel XL	My Verizon Cloud
In-Store Pickup	iPad	Samsung Galaxy S8	
Verizon Wireless Community	iPhone	Samsung Galaxy S8+	
	Kyocera		
	LG		
	Motorola		
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